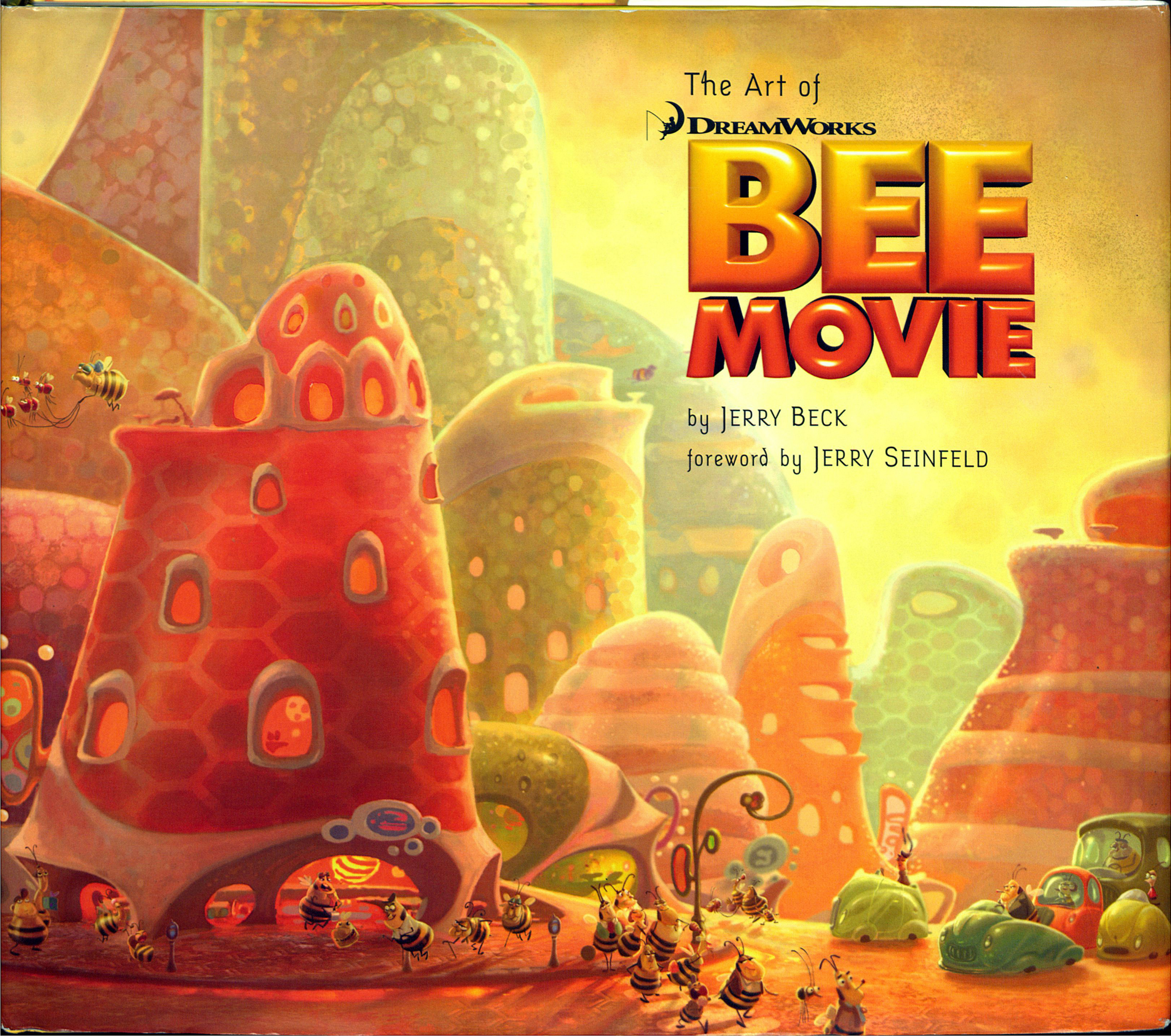


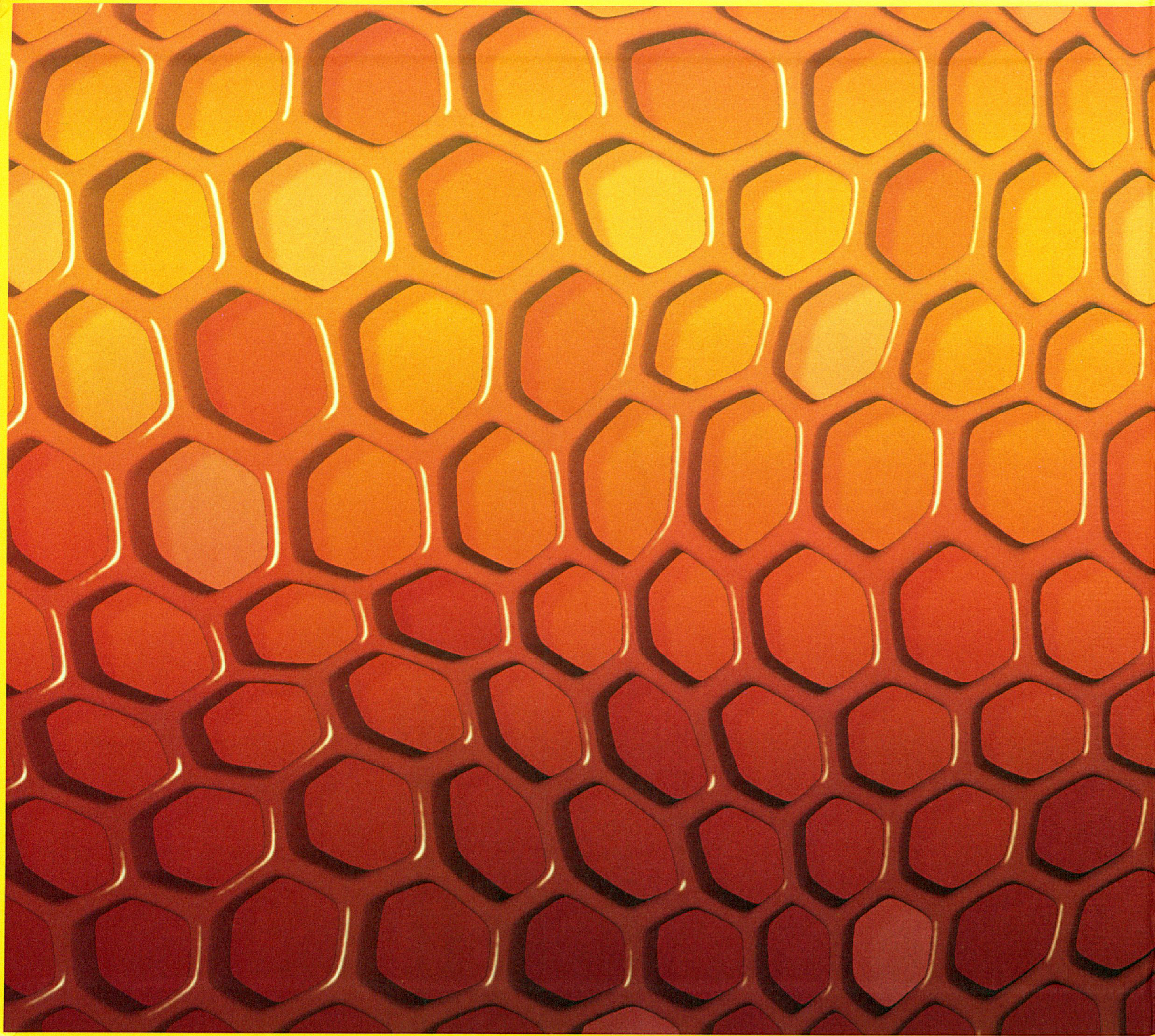
The Art of

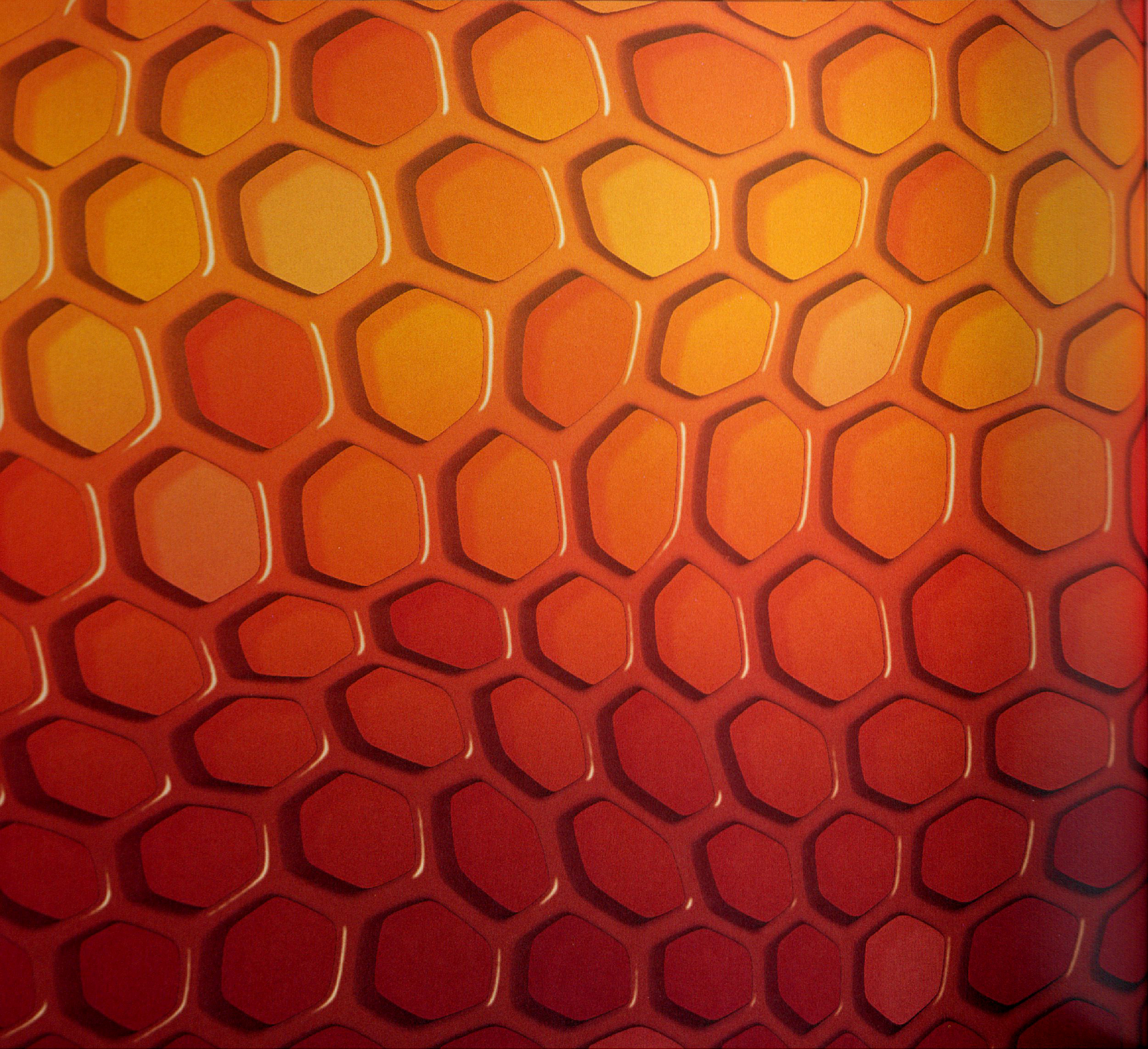
DreamWorks

BEE MOVIE

by JERRY BECK

foreword by JERRY SEINFELD





The Art of Bee Movie

The Art of DreamWorks

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by JERRY BECK

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CHRONICLE BOOKS
SAN FRANCISCO

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(*Above*) **New Hive City buildings** | Kirsten Kawamura | digital
(*Pages 2–3*) **Hive view** | Zhaoping Wei | digital

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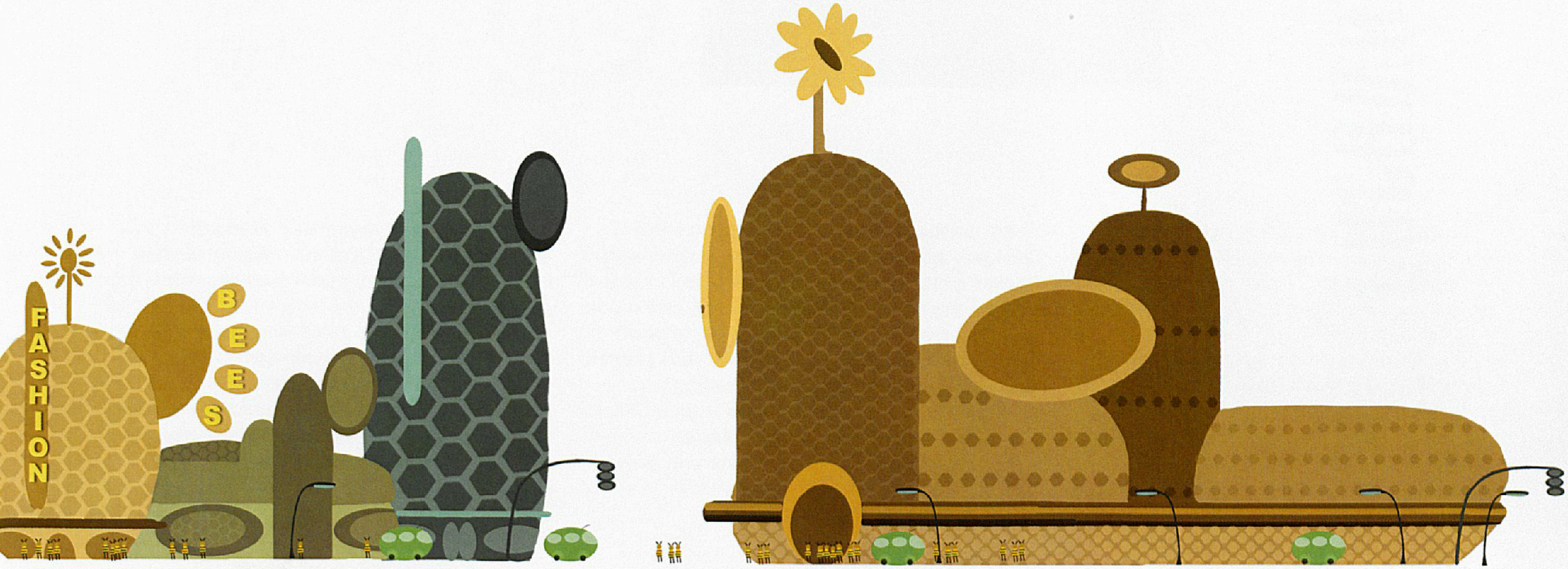
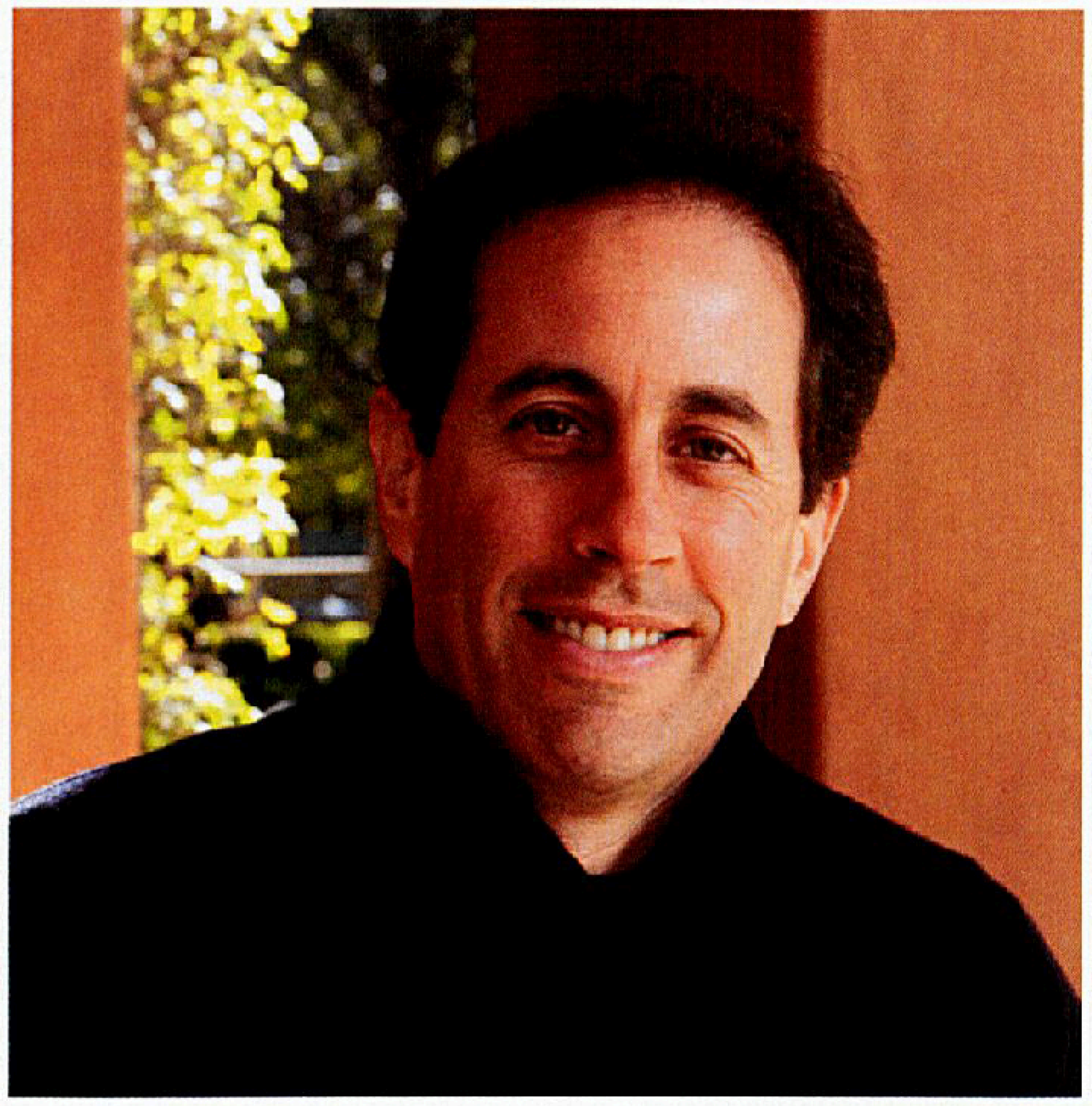


I.

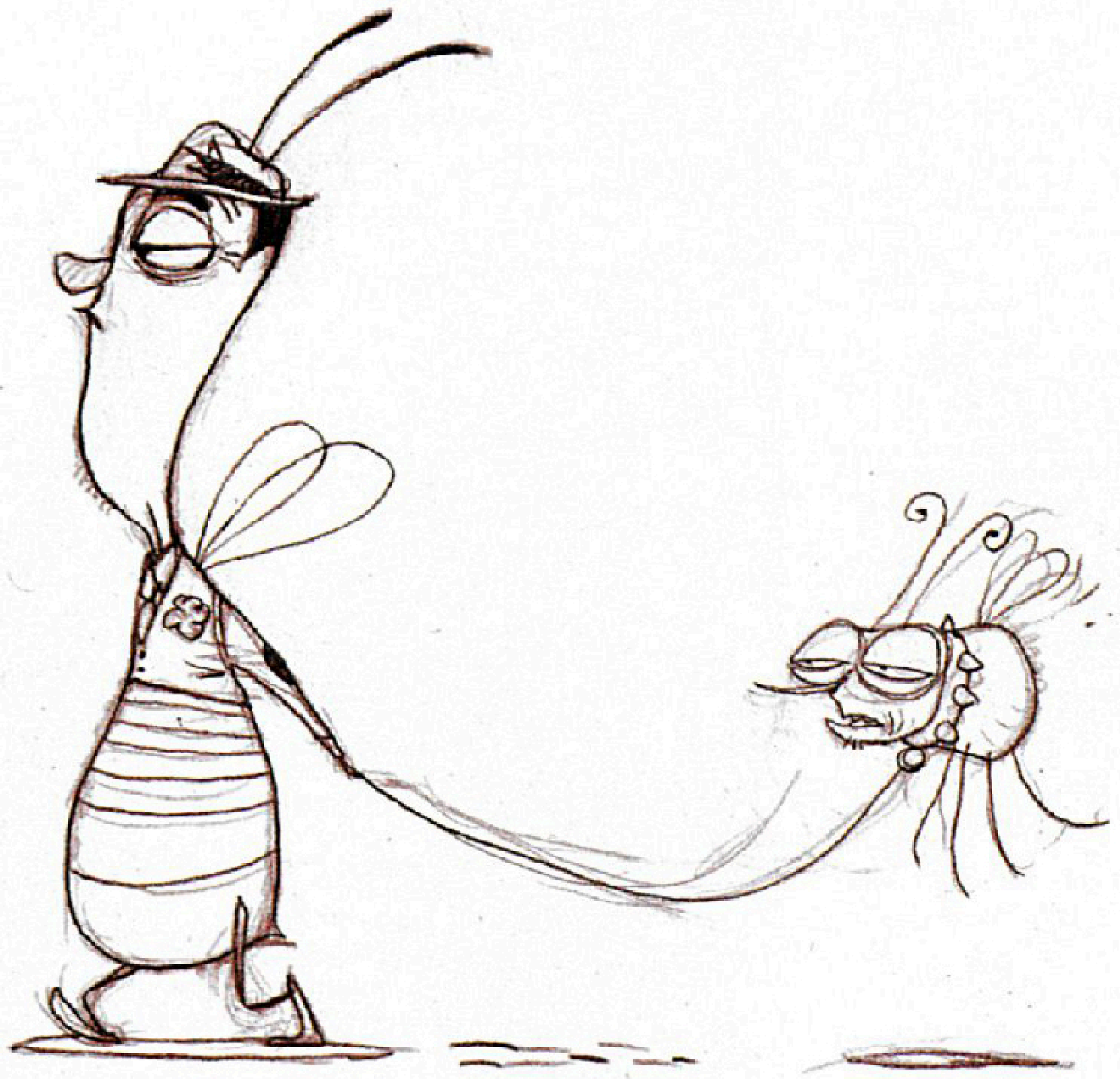
Foreword by Jerry Seinfeld



I have always been fascinated by the highly evolved state of bee society—it's one of the most complicated and most perfect things in the world—but it did not occur to me that bees would be a good subject for an animated movie until I had dinner with Steven Spielberg regarding something else entirely. There was a little lull in the conversation, and, literally just to fill it, I said, "What about a movie about bees called *Bee Movie*?"

The next thing I knew, he had me on a plane to DreamWorks, in California, where Jeffrey Katzenberg demonstrated how this could be achieved.

The first part of this quite long ride was figuring out exactly how to re-create the world of bees inside a hive for the purposes of a movie. I got together with some comedy-writer friends of mine, and we had a great time figuring it all out. What makes the animated-movie experience so crazy and fun is that the only rules are whatever ones you want to make up.



Miscellaneous crowd characters | Christophe Lautrette | pencil and paper

One of the most challenging aspects of the design of the movie was figuring out what my character, Barry Benson, should look like. I felt that the bees should wear clothes, because they are extremely civilized, but that their outfits should be variations on their traditional black-and-yellow color scheme. In particular, I love Barry's sneakers—they give him a youthful insouciance that defines his personality.

The next thing was determining what the bee world—or New Hive City, as we called it—would look like. New Hive City architecture went through many idea sessions; the colors and shapes had to be modern and forward-thinking. To me, bees are very high-tech, but it also had to have a natural, organic feel. A small gem for me was the Atlas-type statue in the town square: A bee holding a giant daisy with a spinning globe centered above his head is a great metaphor for the bee worldview.

The wonderful production designer Alex McDowell is responsible for a great deal of the look of the movie, and I can't say enough about how talented he is and what a pleasure he was to work with. Art director Christophe Lautrette also contributed an enormous amount, focusing on every detail, from the Pollen-Jock guns to the little bee cars. And Grant Larson, from Porsche, did some incredible car-design work for us. If I ever perfect that shrinking ray I've been working on, I'll be driving one of those cars.

Early Barry and Adam | Christophe Lautrette | pencil and Photoshop

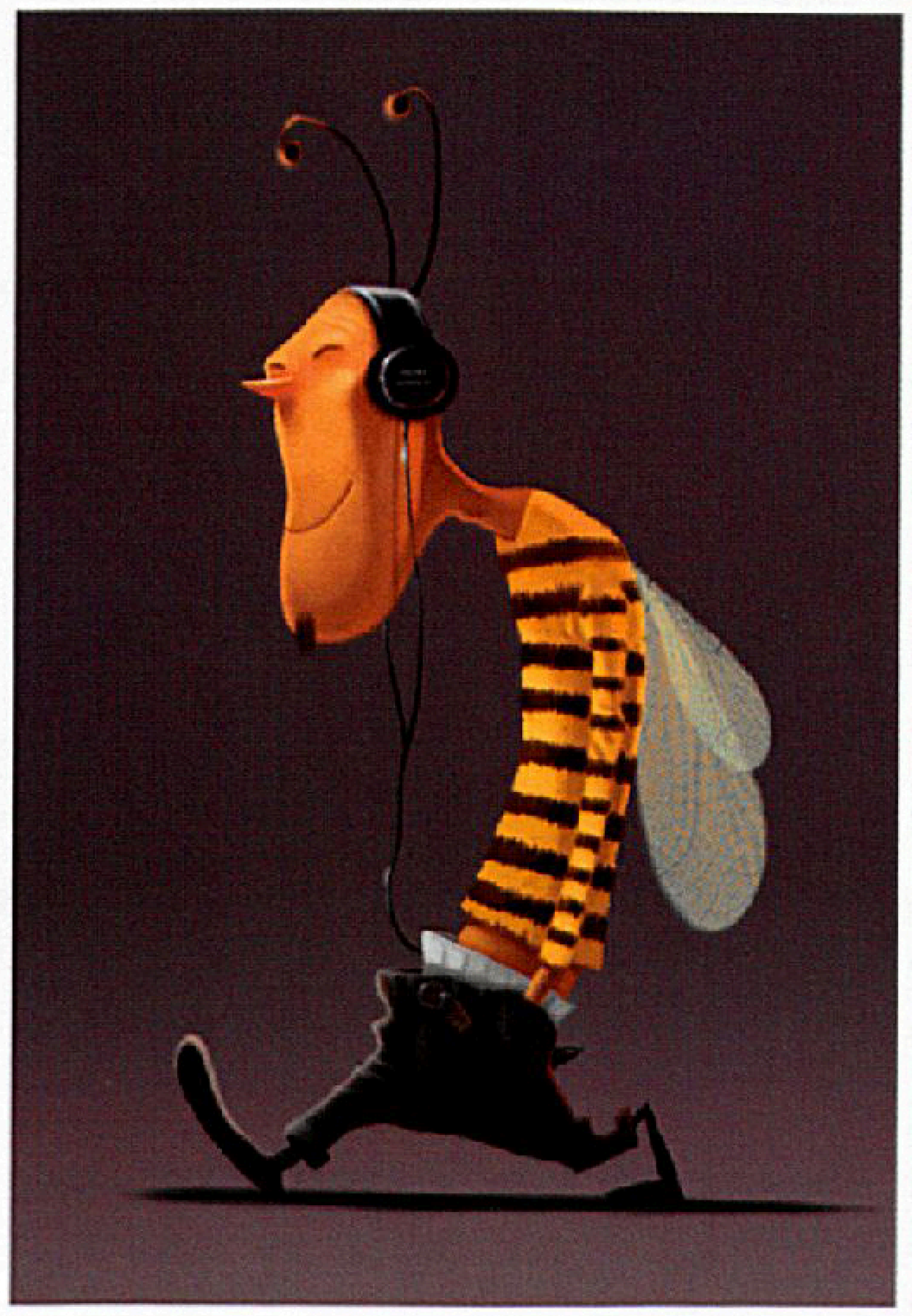
I don't think there was any aspect of the movie-making process that I wasn't in some way involved with. The main question I ask about anything is, "Which way would be funnier?" I also spent tons of time working at DreamWorks, and my favorite part was being with our fantastic production team, led by producer Christina Steinberg, directors Simon J. Smith and Steve Hickner, and delightful supervising editor Nick Fletcher.

In the end, I would recommend making a movie about bees at DreamWorks to anyone I know—and, especially, collaborating with Jeffrey Katzenberg, who has lots of energy, ideas, and opinions, and who, for me, made the whole experience of making *Bee Movie* into a Dream that Works.

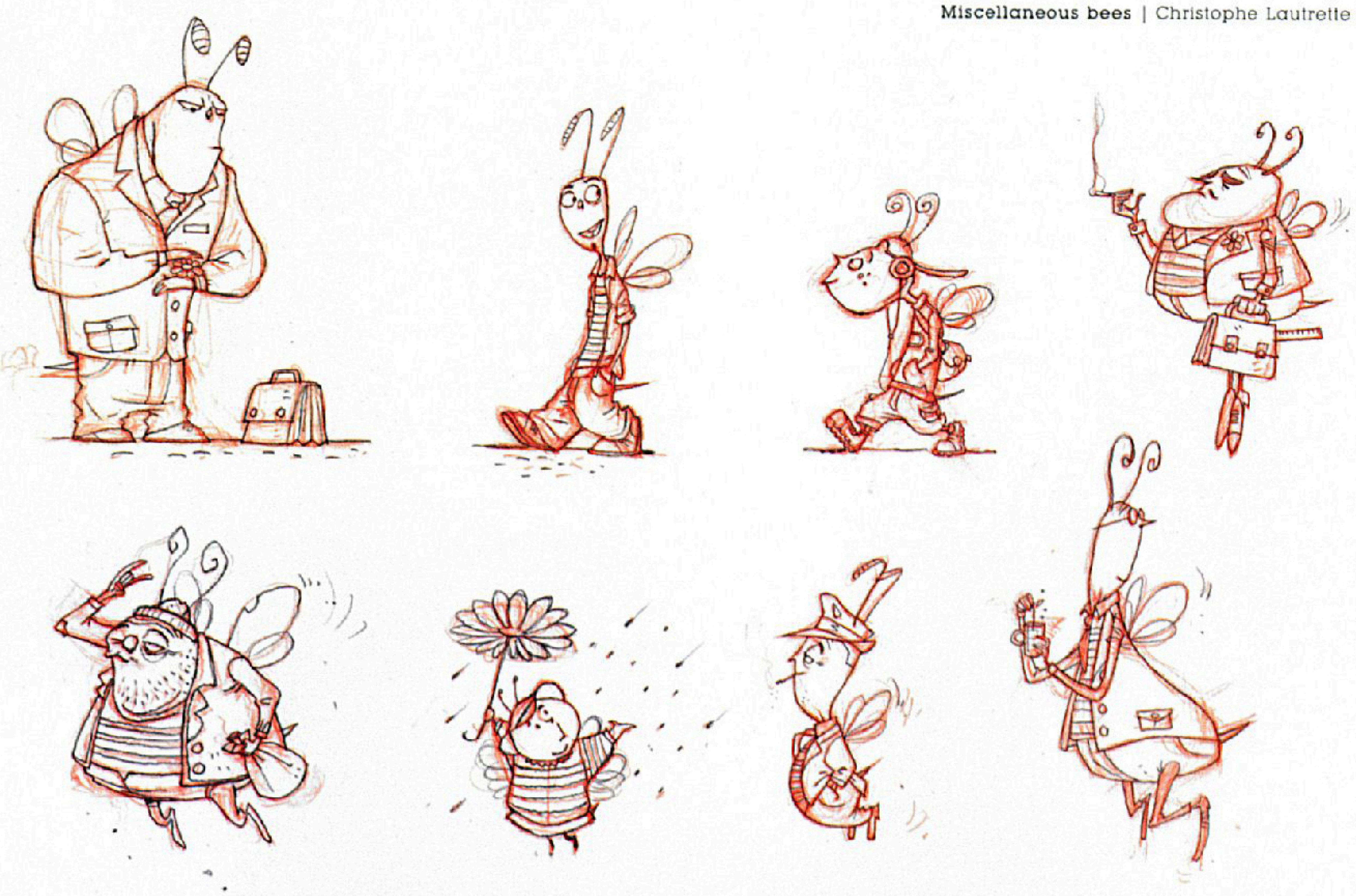
Early concept art | Christophe Lautrette | pencil and Photoshop

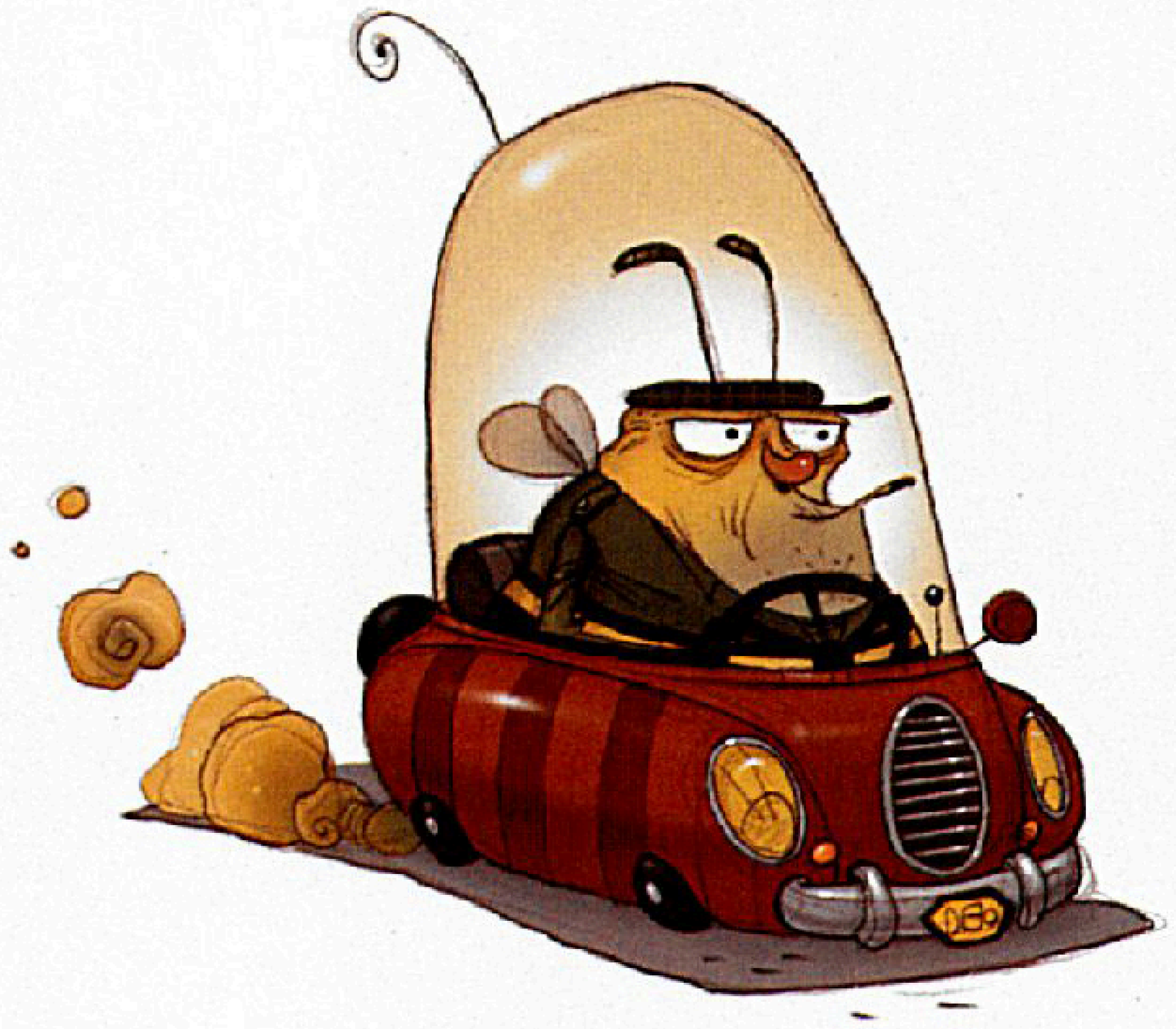
Car concept | Christophe Lautrette | pencil

Bee character concept | Christophe Lautrette | pencil and Photoshop



Miscellaneous bees | Christophe Lautrette | pencil



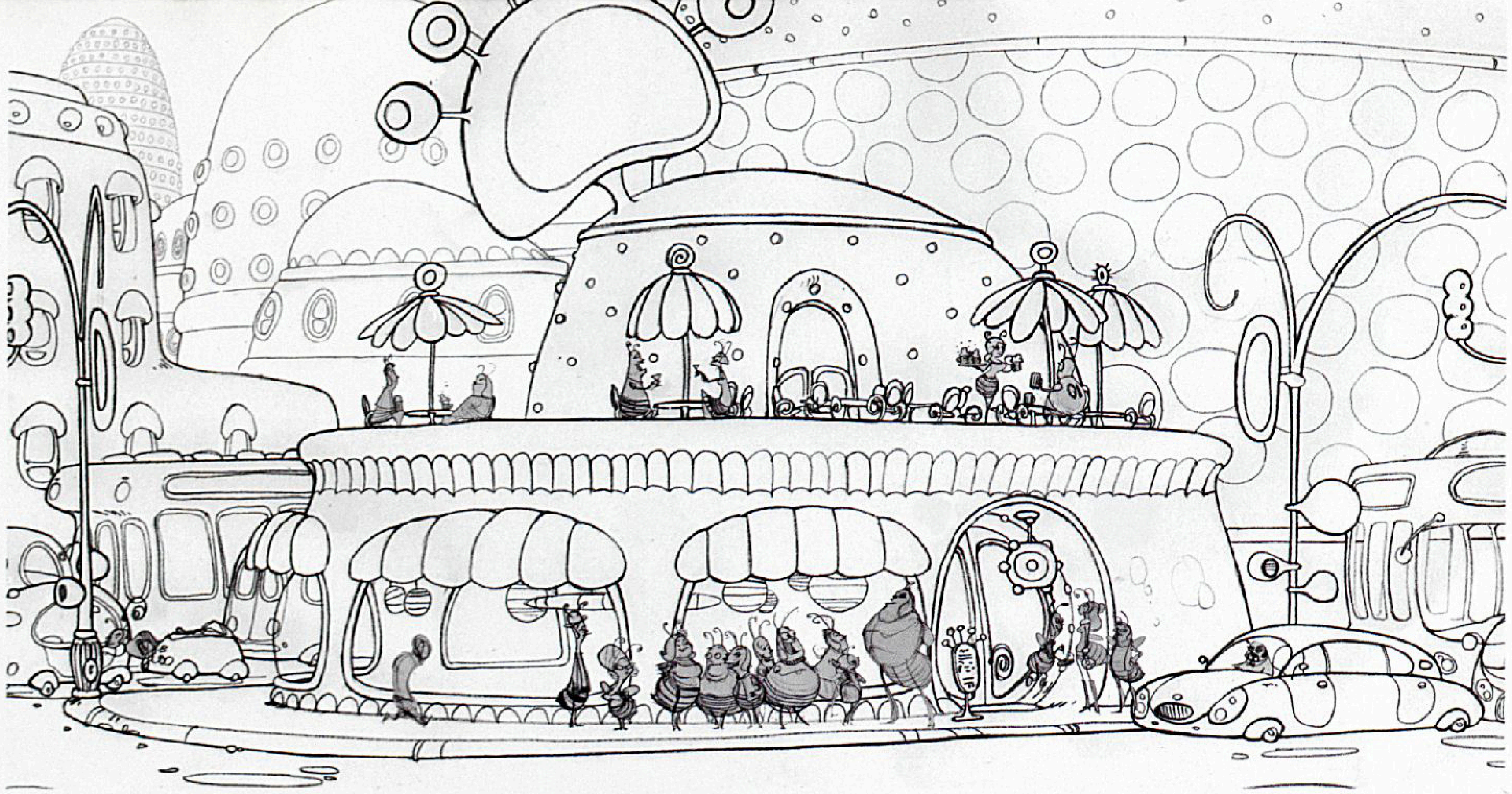


Cab-driver bee | Christophe Lautrette | pencil and Photoshop

Boy bee | Christophe Lautrette | pencil

New Hive City | Kirsten Kawamura | digital

Introduction



Bee-city design | Peter Maynez | pencil

Imagine that you have been asked to create an entire world from scratch in mere months, using only your imagination. This would be a world that no human has ever seen or is ever likely to see. The design must be unlike any other conceived before, and will feature architecture and landscapes that could only exist in your most fantastic dreams. Now imagine that the world you have painstakingly constructed will be home to none other than a buzzing population of bees, one of the most bothersome insects on the planet. You have just been given a taste of the daunting challenges facing the DreamWorks animation crew as they labored to bring comedian Jerry Seinfeld's vision to reality.

Bee Movie follows the life of Seinfeld's insect alter ego, Barry B. Benson, as he explores the universe outside his hive. When Barry learns how honey is stolen and consumed by the human race, however, he sues (bringing a class-action suit on behalf of all bees) for exclusive rights. He wins the case, every drop of honey is returned to the hive, and the bees now no longer need to pollinate the flowers. When Barry discovers the devastating effect this has—interrupting the natural cycle of flower pollination—he and a florist he befriends race to the Rose Parade in Pasadena to rescue the last surviving roses and save the world.

Hive, wide angle | Mike Hernandez | digital

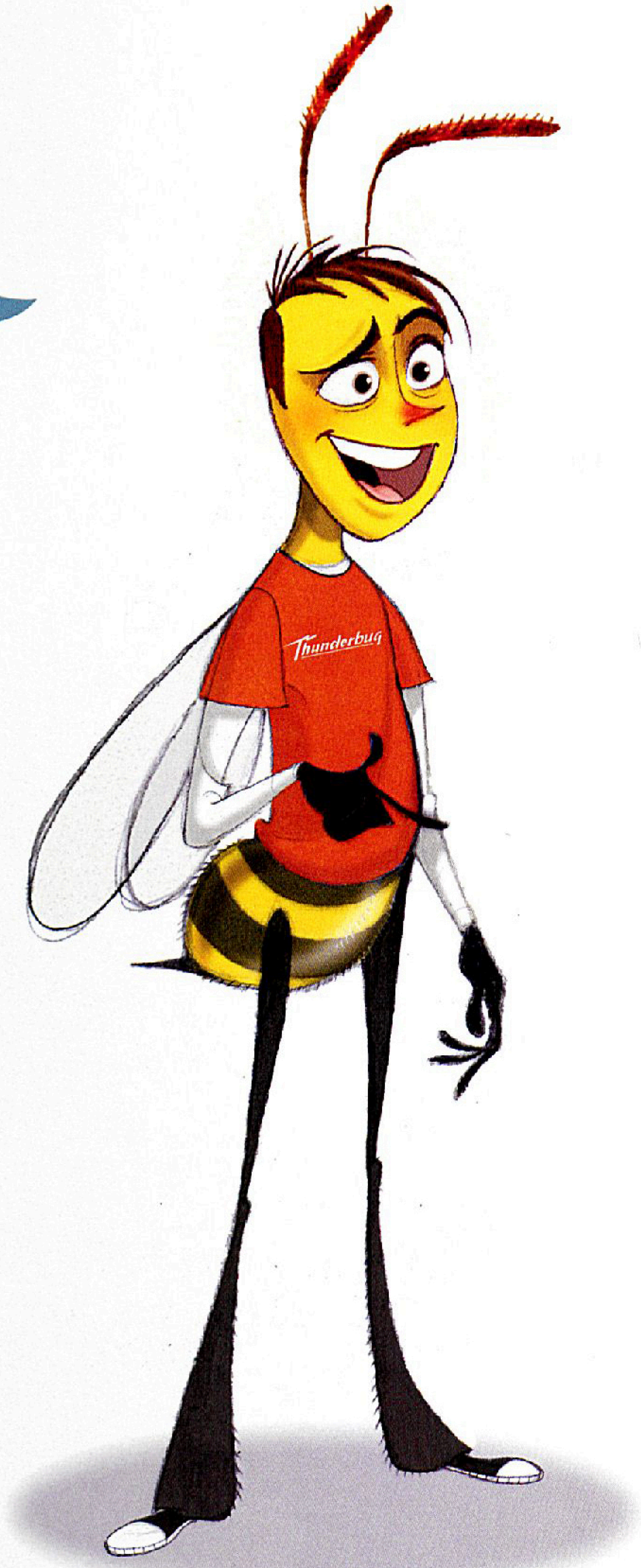
Seinfeld's storyline allowed plenty of room for the observational humor for which he's famous. Whether in person, or via video hookup when he worked out of his home in New York, Seinfeld attended daily production meetings with the crew at the DreamWorks Animation Studio in Glendale, California. He reviewed dailies and storyboard revisions, giving verbal—and often physical—notes on each shot, all character movements, and every facial nuance. No detail was too small for his interest and attention.

Such details were vitally important to the making of *Bee Movie*. It typically takes thousands of years to create a civilization, but Jerry Seinfeld and the masterful tale-spinners at DreamWorks were able to bring a lively and fascinating society of bees to life in a time span much less.

Crafting a fantastic story, however, was only part of the job. The greatest challenge to the DreamWorks team was creating the visual world from scratch—and that is what this book is all about. The artwork on the following pages is but a sample of the thousands of sketches, paintings, storyboards, and digital images of inspirational art, early concepts, and final design decisions it took to make this film. It is an intimate look at how the artists at DreamWorks got inside the mind of America's reigning comic genius and fashioned a stylized world so detailed, so extensive and so . . . bee-utiful.

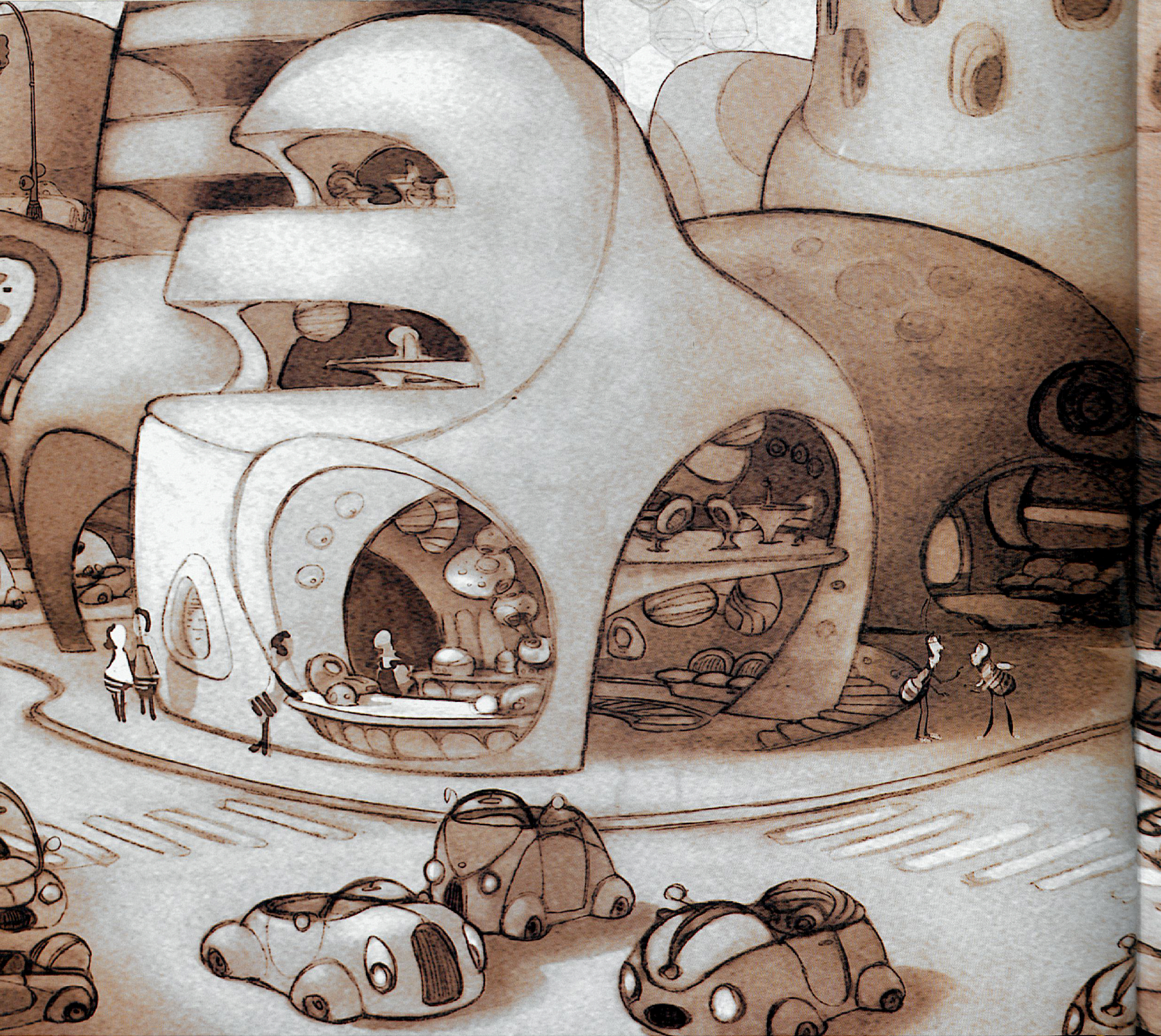
Barry

"At first, we designed Barry to look like Jerry Seinfeld. We went there because we thought it would be something that Jerry would have liked to see himself. But he wasn't too crazy about the idea.... So we left that alone, and Jerry Seinfeld comes through just through Barry's body language. It would have been a mistake to try to see his face on the screen."
—Christophe Lautrette, art director

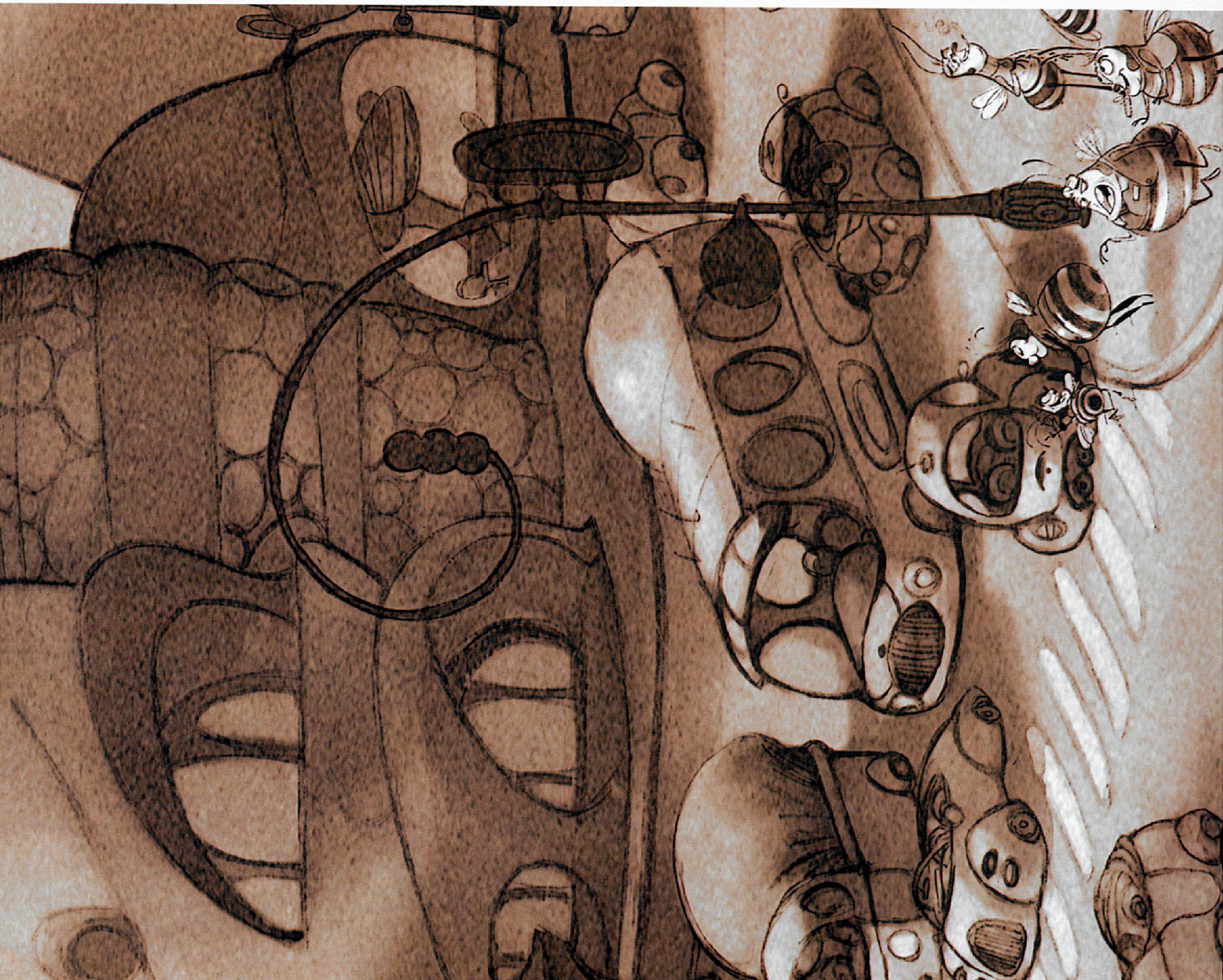


Early Barry | Tony Siruno | pencil and Photoshop
(Opposite page) **New Hive City design** | Christophe Lautrette | pencil and Photoshop

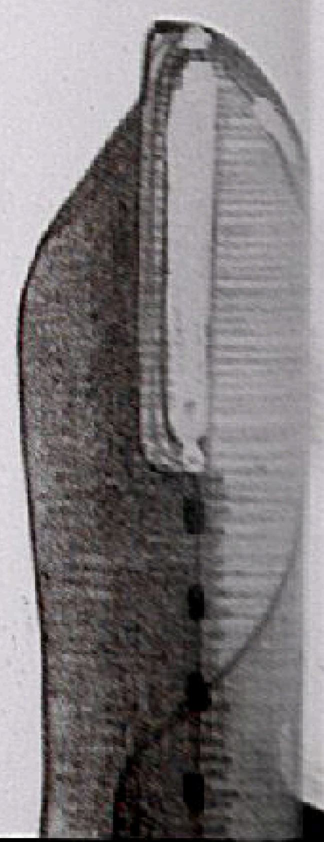
Bee Market
THEATRE
BEE MOVIE
BEE.MOVIE
THEATRE
THEATRE
RESTAURANT



The Hive



Hive walk | Mike Hernandez | color key
(Pages 16–17) **Bee-city designs** | Peter Maynez | tonal in pencil

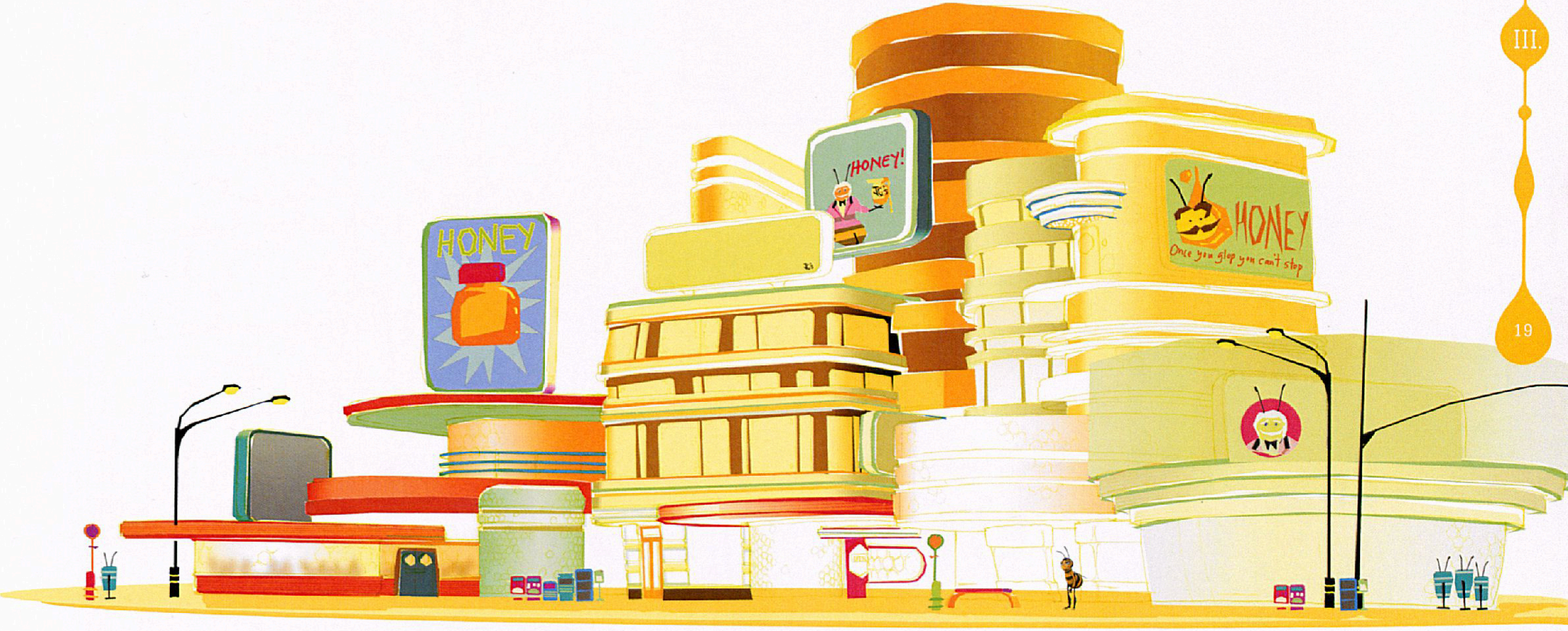


Bees are renowned among the insect kingdom for their complex social organization. Life in New Hive City reflects this fact perfectly. The hive in *Bee Movie* is a waxen world unto itself, designed to produce the lifeblood of the bee community—honey. The massive Honex plant (where honey is produced) keeps the workers busy, but they also need houses and apartments in which to live, as well as places to relax and recuperate after a long day's toil. Conceiving such a world took considerable time and effort.

"It took a long time before we figured out what New Hive City was going to look like," says Jerry Seinfeld, remembering the earliest phases of visual development for the bee community. "We tried so many different things."

"The first six months of production design showed us what we shouldn't be doing," says director Simon J. Smith, recalling it all now in a positive light. "It was incredibly helpful. We knew where we *didn't* want to go."

Though the characters were fully formed, the larger challenge was creating a fanciful world of bees that no one had ever seen before. For animation artists, creating a completely alien universe would be an easier undertaking than reimagining known quantities such as bees, beehives, and honey production. Originally, the art direction was aimed at creating a city that was a take-off of Manhattan, populated with bees designed like miniature humans with wings. Half a year into the process, Smith knew they had hit a creative wall. "We had to start from scratch on the world and the characters because none of us felt it was right," he says.

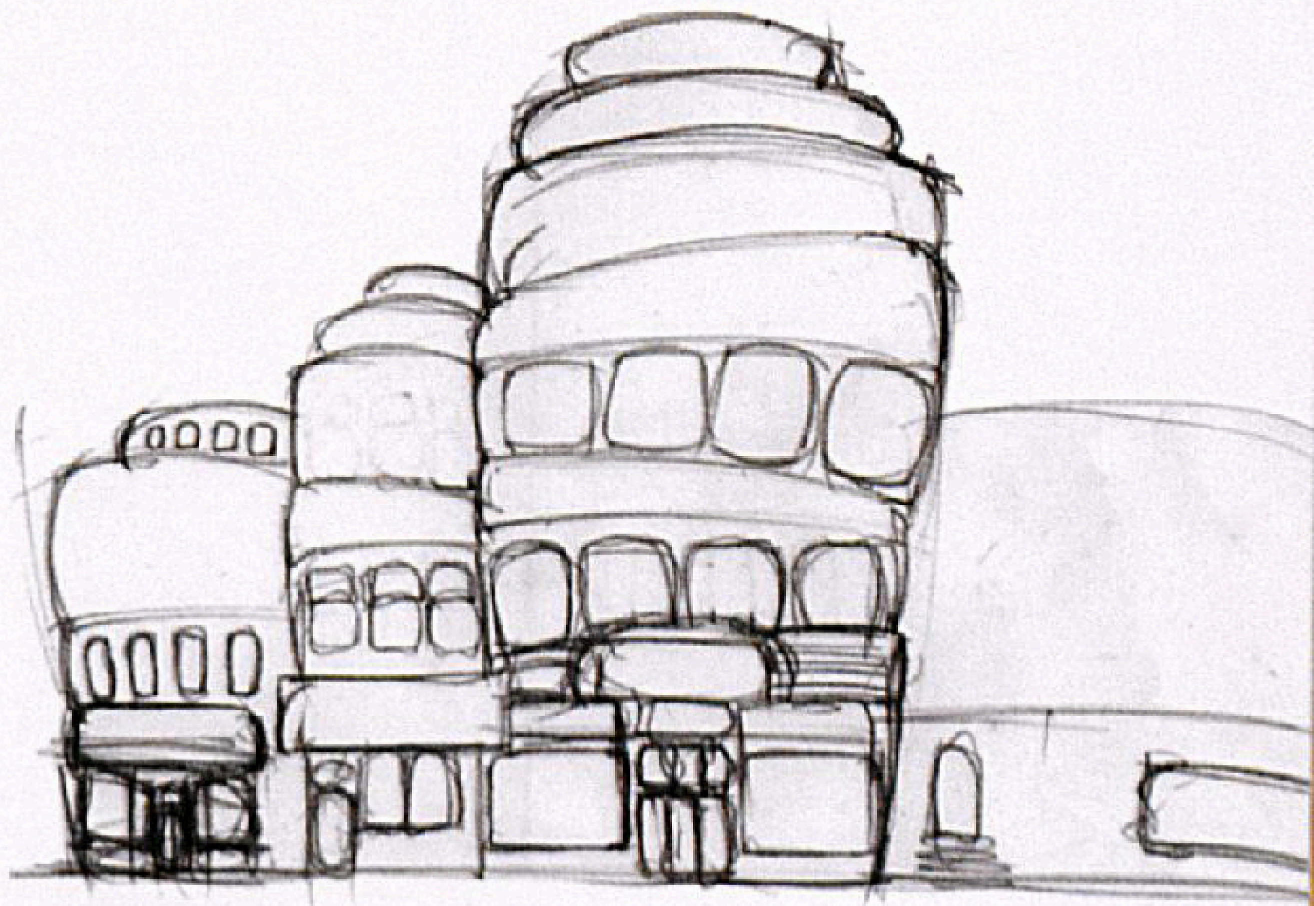


Bee block | Olivia Mole | digital

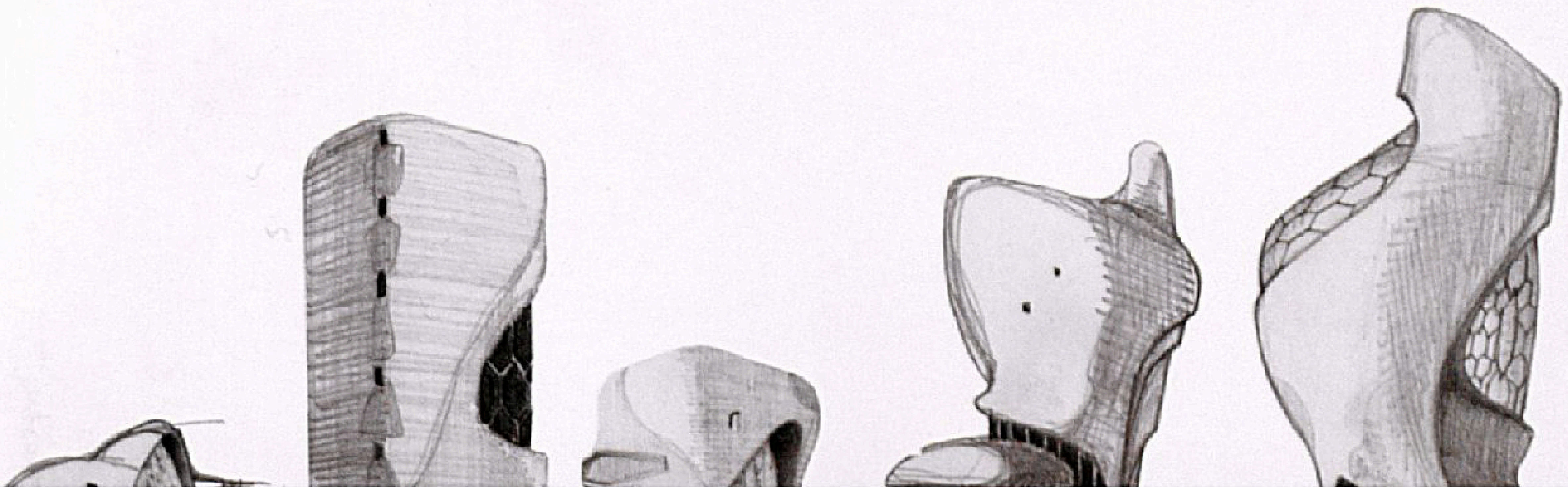
DreamWorks Animation CEO Jeffrey Katzenberg concurred with the filmmakers—and authorized the search for a new visual approach. "It was very brave of Jeffrey to say, 'We'll have to start again,'" Smith says. "We were all tremendously relieved that he agreed with us. None of us felt it was right. You know when it's right."

That is when Alex McDowell came on board; his innovative production design had wowed audiences, critics, and Hollywood insiders alike with such distinct films as *Fight Club*, *Minority Report*, and *The Cat in the Hat*, as well as two Tim Burton hits: the live-action flick *Charlie and the Chocolate Factory* and the animated puppet movie *Corpse Bride*.

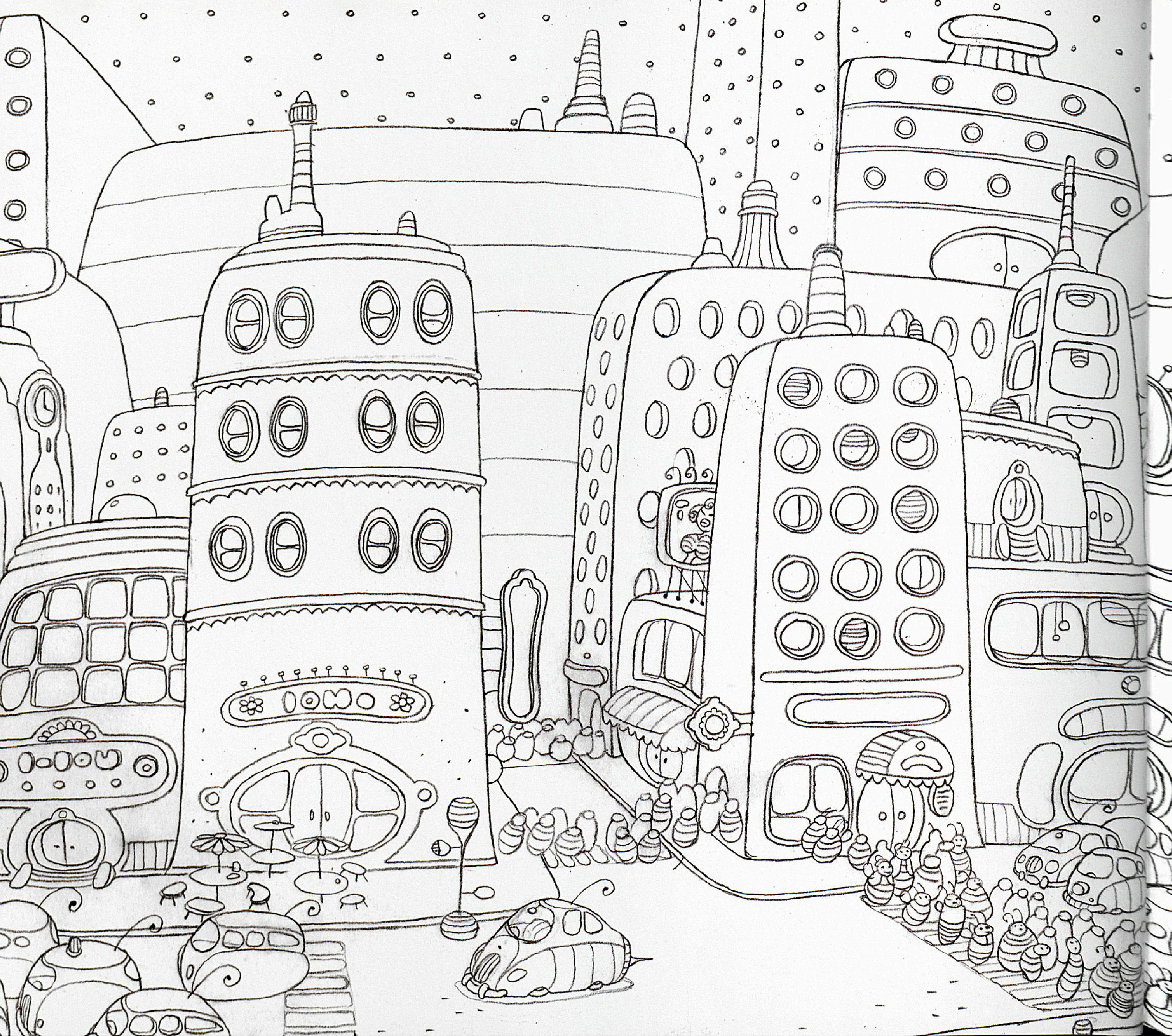
But *Bee Movie* would be unlike any of McDowell's other film experiences—this time, none of his work would exist in any physical space. "When I read the script and met the directors and Christina, and I saw the leading hive sequence, it was so much more epic and fun than I was expecting from the verbal description," he recalls. "It was funny; the script was very complete, smart, and interesting. There was obviously a huge amount to be done visually. The initial attraction is designing a completely new world for bees."

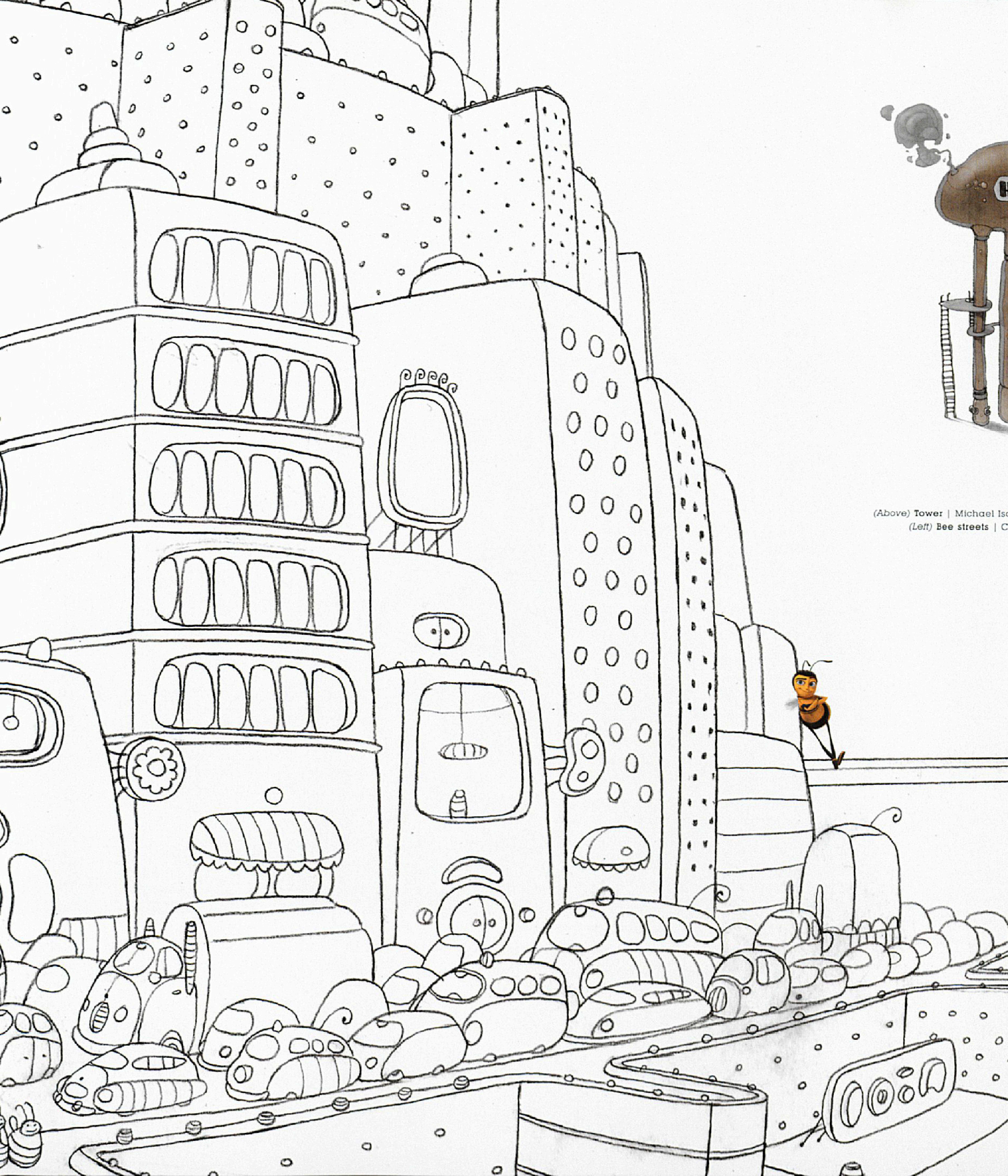


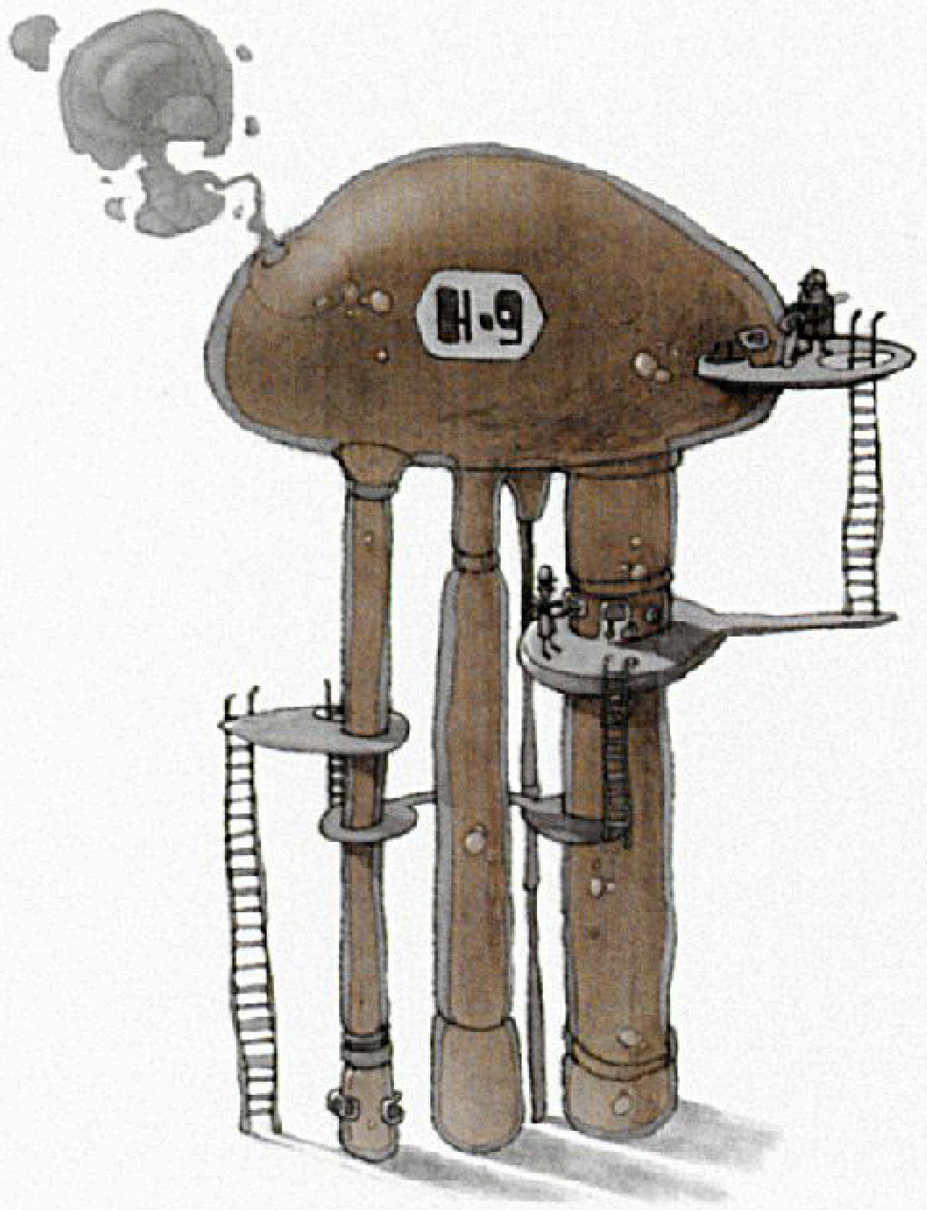
Bee street | Zhaoping Wei | pencil



Bee buildings | Peter Maynez | digital







(Above) **Tower** | Michael Isaak | pencil and Photoshop
(Left) **Bee streets** | Christophe Lautrette | pencil

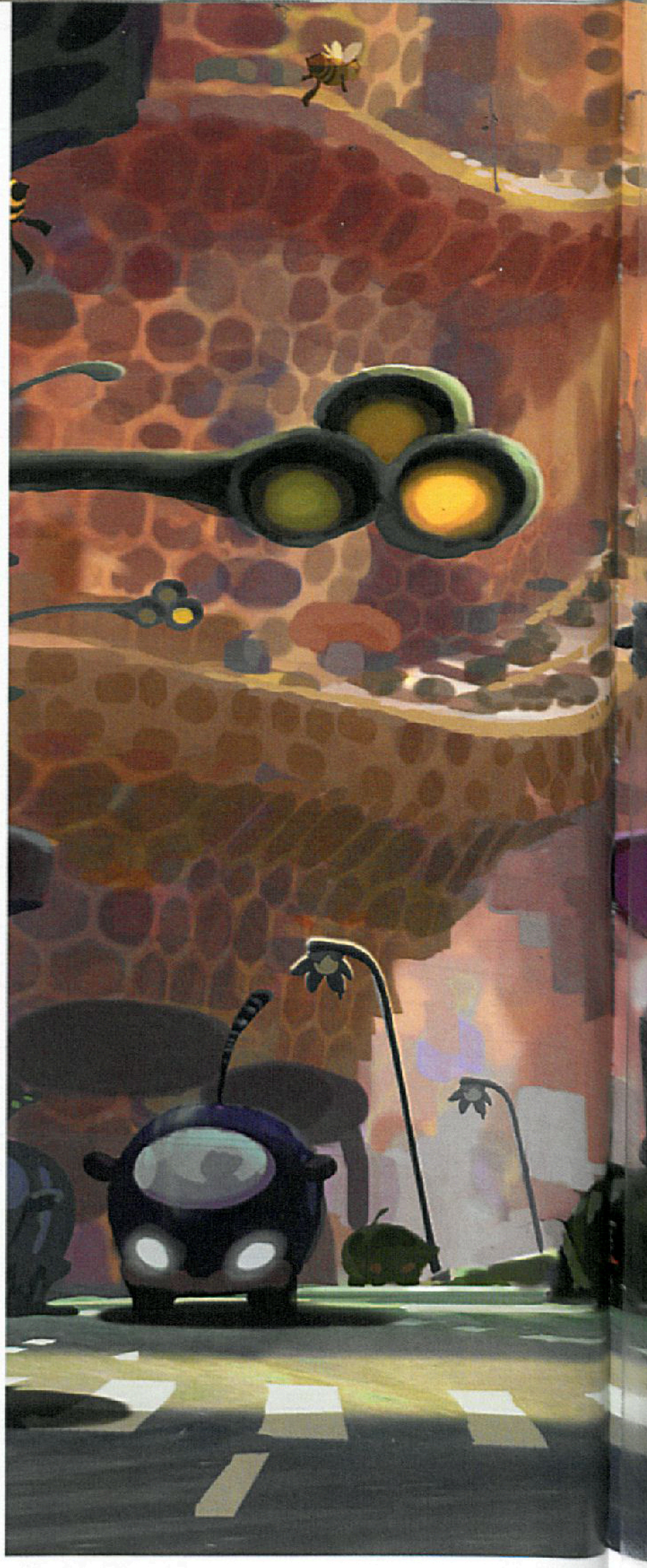
"Then I met with Jerry," McDowell adds. "Everything he said was great—just the idea of trying to create this utopian world beneath the notice of humans that is better-developed, better-working—a socially and culturally more successful world. I'm always interested in creating societies in the films I design, so it became very fascinating."

McDowell, after looking back at the original concepts, recalls his first impressions. "Before I came, I think there was a drive to make the hive a parallel universe to New York, with hexagon-shaped buildings that were skyscrapers," he says. "Simulating the real world was difficult," agrees art director Christophe Lautrette. "It didn't make sense." Lautrette had already begun working on an organic world—one that could be identifiable to humans, yet remain uniquely bee. Lautrette and McDowell had a meeting of the minds, and things flew off from there—they conceived a real working city that could exist in a hive that felt both different and primal . . . and fun.

Working with the team already in place, including Lautrette and associate art director Mike Hernandez, McDowell reanalyzed New Hive City and strove to connect it to its place in the narrative whole of the picture. "I'm interested in architecture and narrative structure, so I take the approach that these are buildings that have a life and history; they've been there for a hundred years or a thousand years. There's an accretion that's gone on. I attempt to find an interior logic and work out from that," he says.

The team soon determined that if honey is the currency of this world, then the world needs to sit on top of the factory; the production of honey is the engine that drives the bee world. "The whole design of the beehive became metaphorical," McDowell says. "You put the moving parts—the engine—in the center, with the city and suburbia, the support system, around it."

"It was a fine line between science fiction and something that fit the script," says Smith. "And we all kept going back and forth with all kinds of architecture. I pitched an idea, contemporary and fun, inspired by Philippe Starck." McDowell and the team also found inspiration in the famed Einstein Tower observatory in Potsdam, Germany. Built in 1921 and designed by architect Erich Mendelsohn, Einstein Tower actually resembles a large, white beehive. When Albert Einstein toured the facility in person, he described it as "organic." The shape of natural beehives plus contemporary organic architecture integrated with Mendelsohn's tower's components to create the overall hive design. "As soon as we hit that, the buildings came into place—round tops and more human detail near the bottom," Smith recalls.



Street scenes | Seth Engstrom, Christophe Lautrette; Nico Marlet, characters | digital
(Pages 24–25) **Bee Café** | Armand Baltizar | digital

cafe

Bee street | Christophe Lautrette and Nico Marlet, characters; Seth Engstrom, color | digital

Wax Texture | Mike Hernandez | digital

Model of New Hive City | Mike Hernandez and Kirsten Kawamura | clay

"This was one painting that the directors loved—the color and how happy the world is, and it wasn't sci-fi. The problem was that it was too out there, that you couldn't relate that it was a city per se. We stayed with this concept for quite a while but gave up on it because the hive had to look more like a city with buildings."
—Christophe Lautrette, art director

The first big breakthrough came when designer Kirsten Kawamura made some color drawings of the hive that really hit home. Then she and Mike Hernandez did clay models. "And that's it," declares Smith. "It's like a sand-castle city, but made out of wax." Hickner agrees. "I think if we kept doing it in 2-D, we never would have got there," he says. "It was Mike and Kirsten building that model that put it over."

Finding the right look for the bees' city turned out to be only the first step in the production design. "The most interesting part of designing the hive is figuring out how you light it," says McDowell. "When the main materials are wax and honey, what can you do with that? The solid but translucent hive walls would create a completely unique lighting condition."

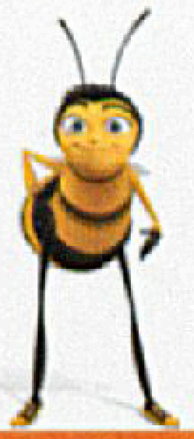
Christophe Lautrette skillfully incorporated the new design direction into the overall art direction of the film. Color was a major factor in differentiating the hive from other environments in the film. "A color script is done to have a broad stroke of what the entire movie is going to look like, sequence by sequence," says Lautrette. "Going from cool colors to warm, from happy moment to sad moment, it gives us a hint of what the lighting should be. I always consider that our first map, and we always have it as a reference."

It's here where you realize computer graphics is still in its infancy. Each animated film still presents unique hurdles for the artists and technicians, new challenges the moviegoing audience will never be aware of. In the case of *Bee Movie*, it was about creating wax. "Wax is beautiful—we've been looking at candles for months," says McDowell. "We talk a lot about how luminous the surfaces are, how much light they reflect, how much it transmits, and what it looks like. If you go too hot and highly lit, it becomes like candy, which is not what we want."

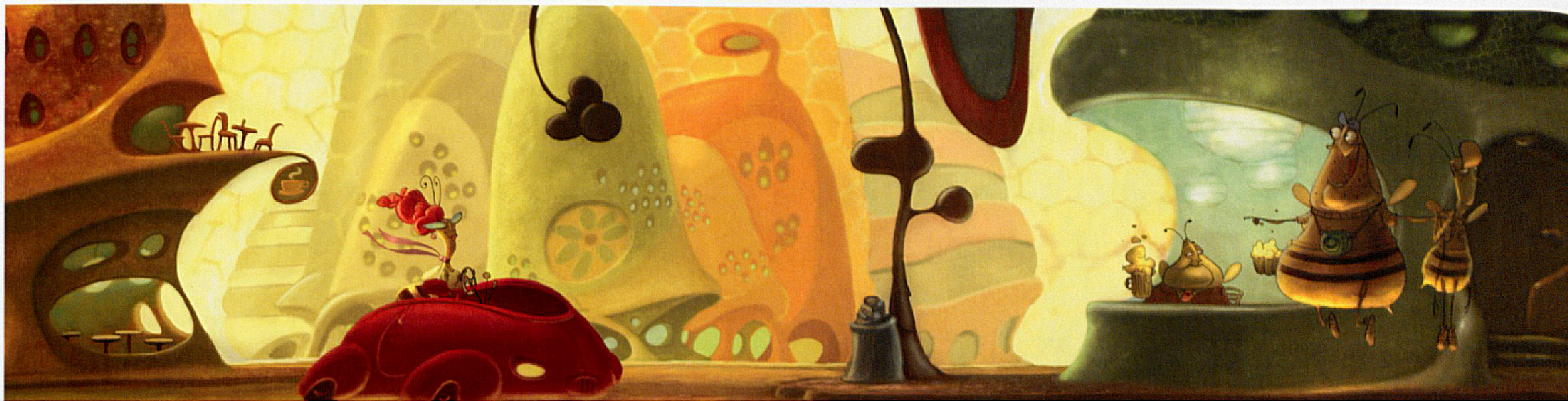
Visual-effects supervisor Doug Cooper acknowledges that creating the wax look of Hive City was crucial. "Simulating wax in the computer is a daunting task," he says. "It requires a great deal of sophistication: How the light penetrates the wax surface and diffuses. What happens to color, and does it reveal the texture inside versus the texture sitting on top of the surface. Wax is one of those materials that you inherently understand what it looks like. And if you don't get it right, it's not believable."

"Wax is probably one of the toughest properties to ever achieve in 3-D," says Mike Hernandez. "It's neither a plastic, nor a metal, or glass. We looked at a lot of references and hundreds of different candles. Once we understood how it worked in principle, then applying it to 3-D was a whole other challenge in and of itself. How to get it to react to the light properly was an ongoing concern for us."

The goal was to create an enviroment for Barry Benson and his swarm of coworkers that audiences will believe and that will make sense for the characters and the story. "Color also played an extremely important part in creating this world," says Hernandez. "In the bee's world, everything is just orange and yellow, and the danger in lighting such a place is getting muddy-, dirty-, or mustardy-type colors. We had to be careful: if we pushed the color too much, it started going juvenile. So within the warm palates we began introducing violet-, blue-, and cream-colored hues, basically all the pastel colors we could fit in. We ultimately achieved a playfulness that matches the characters."



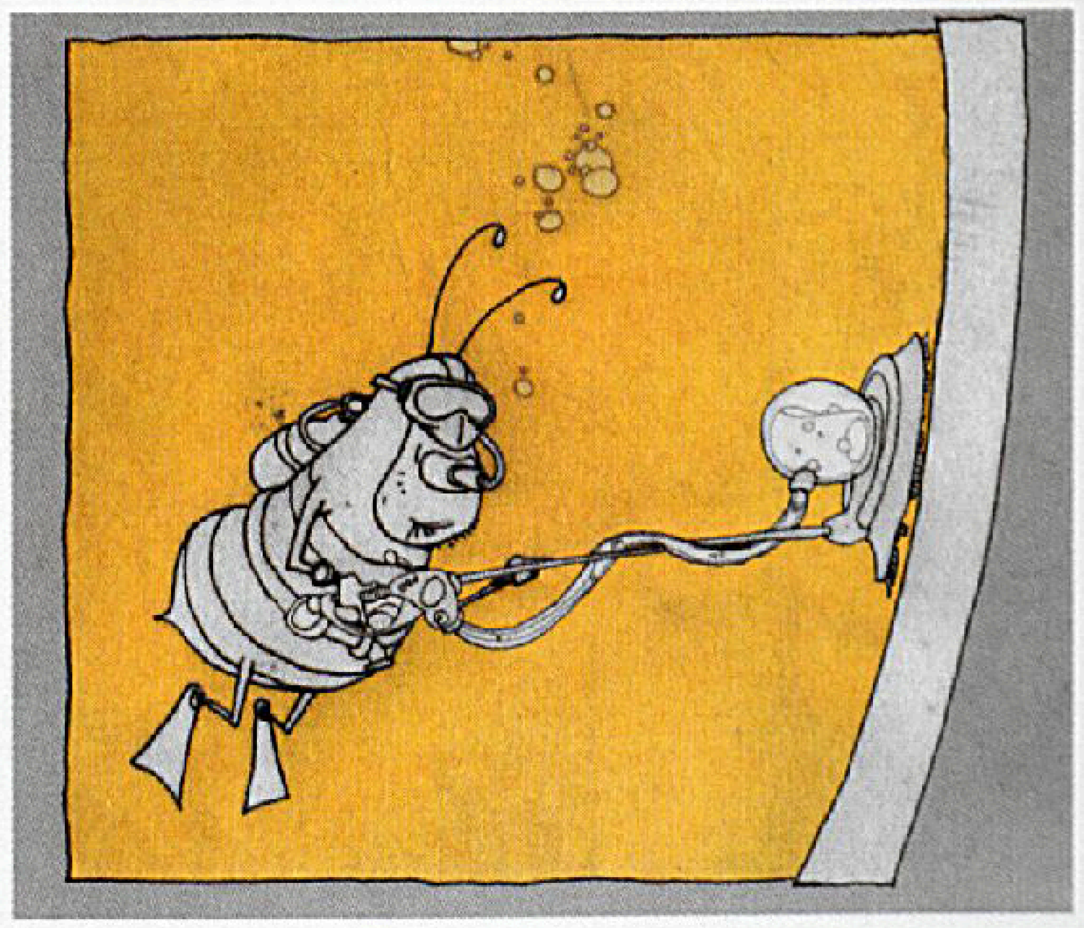
"We wanted to have a certain amount of relatability in this society from our point of view."
—Simon J. Smith, director



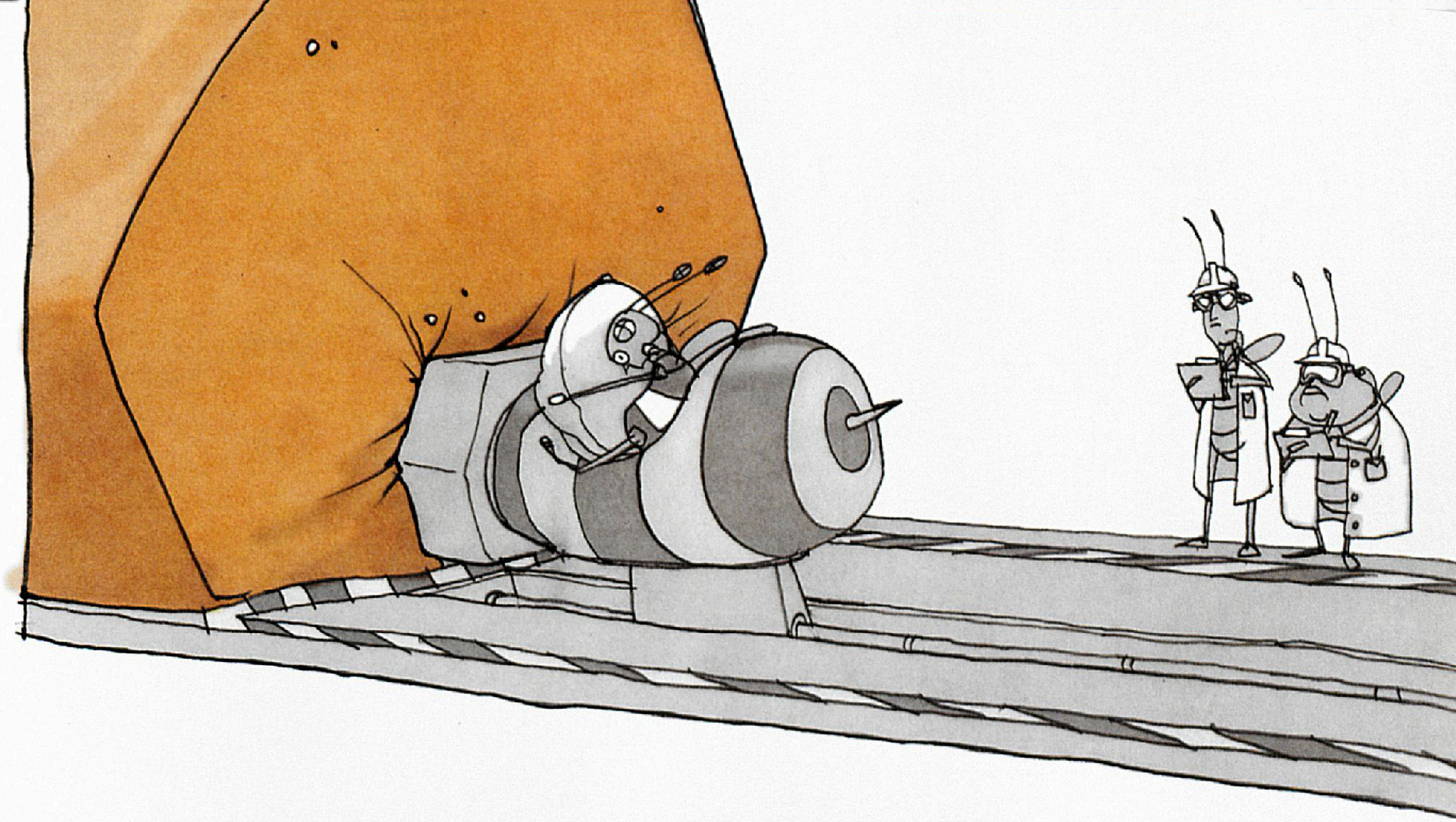
Bee street | Kirsten Kawamura | digital

Early Hive and Honex Development

Assembly line | Michael Isaak | pencil and Photoshop

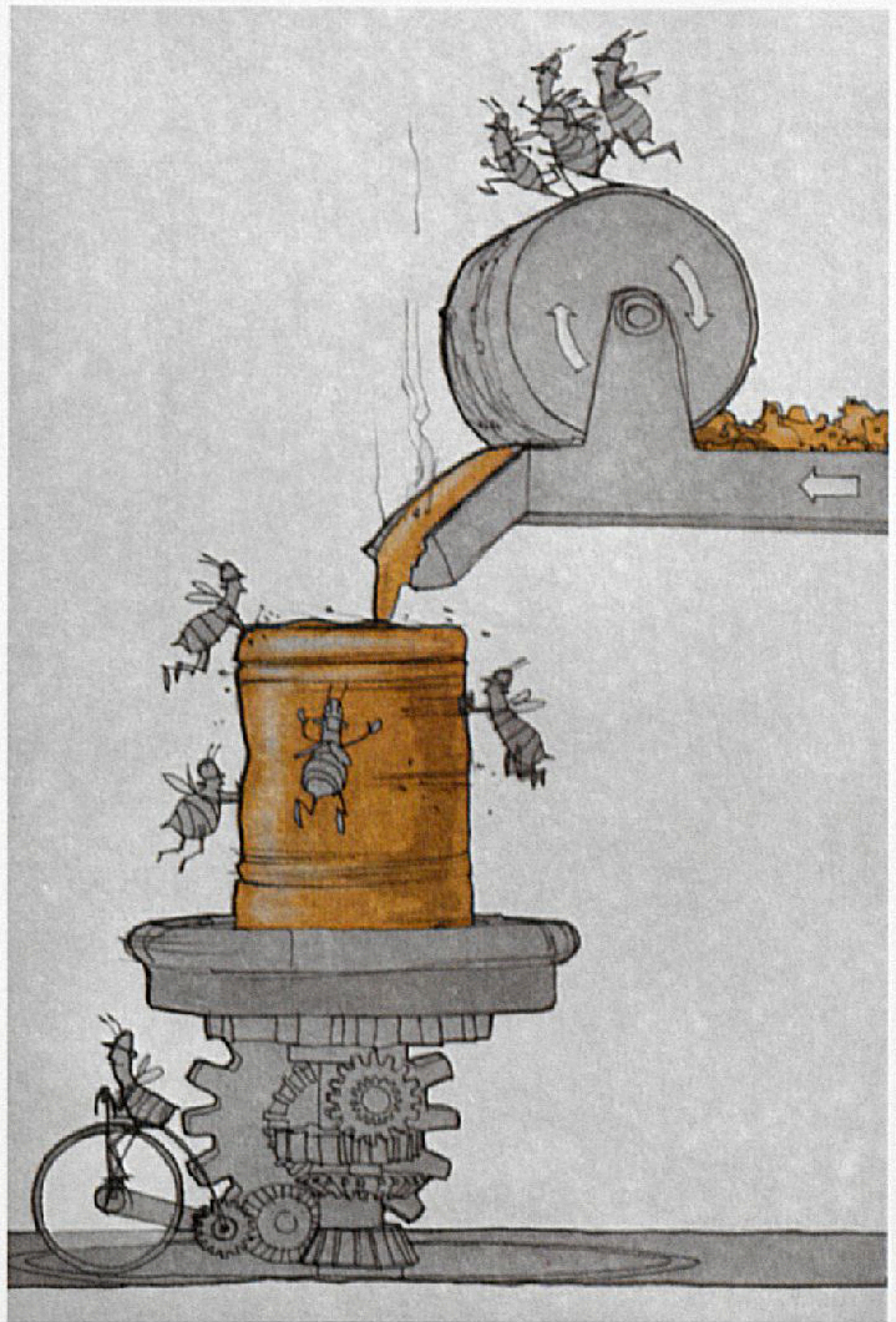


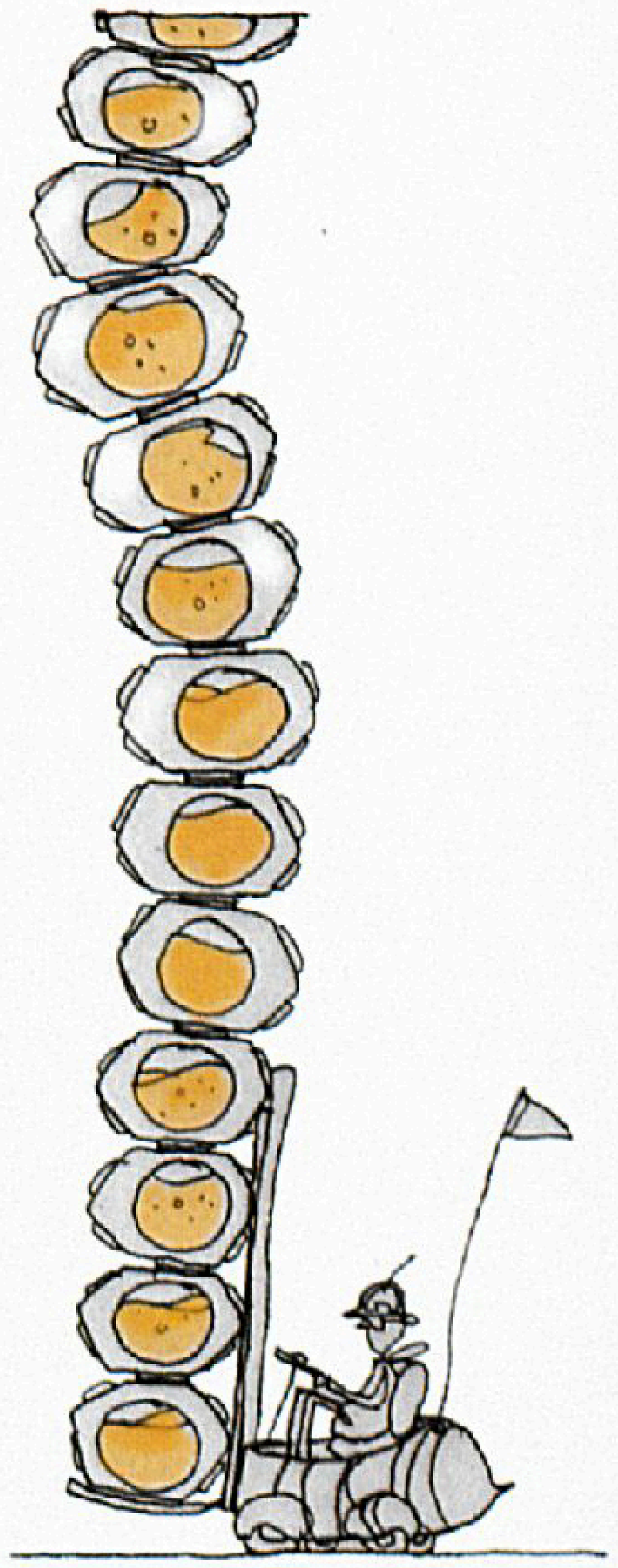
Scuba | Michael Isaak | pencil and Photoshop



Crash test | Michael Isaak | pencil and Photoshop

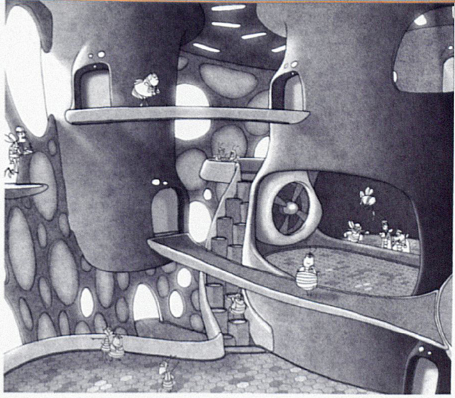
Pottery | Michael Isaak | pencil and Photoshop





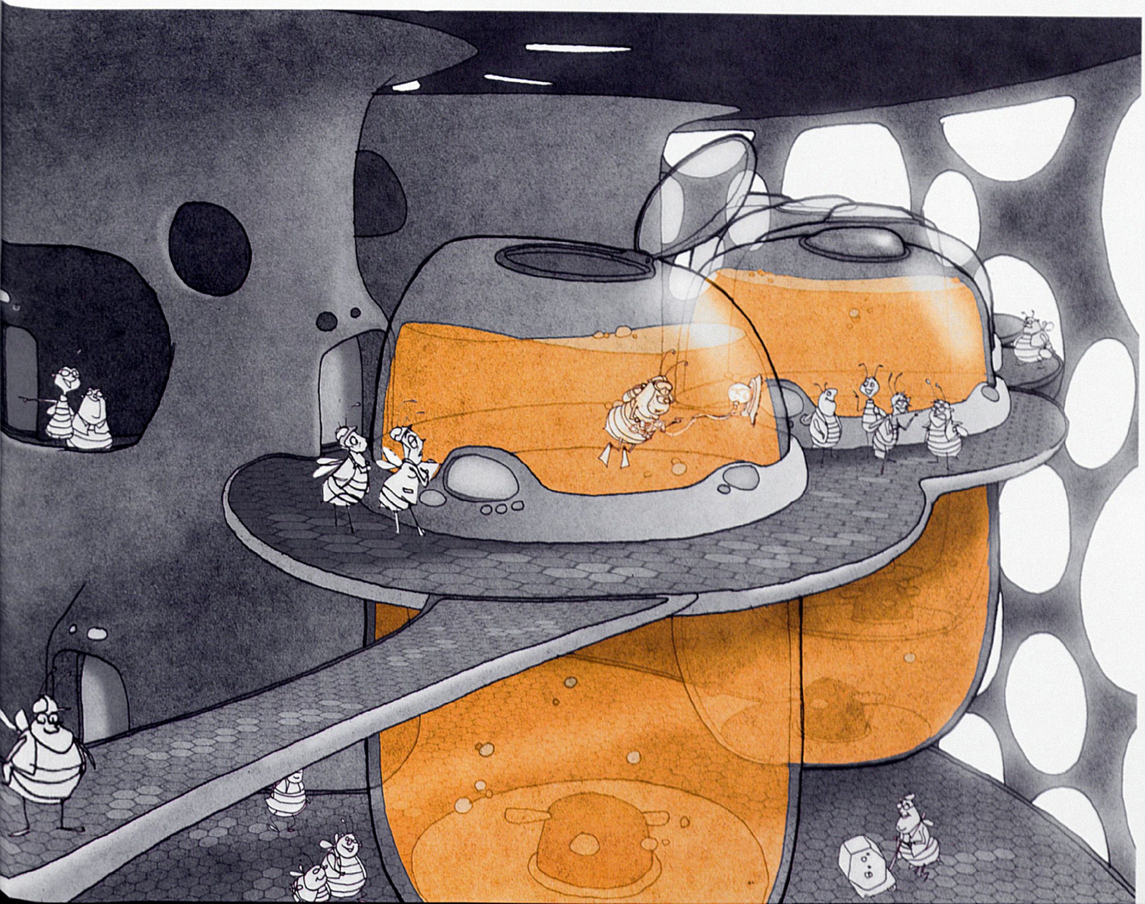
Stacking | Michael Isaak | pencil and Photoshop

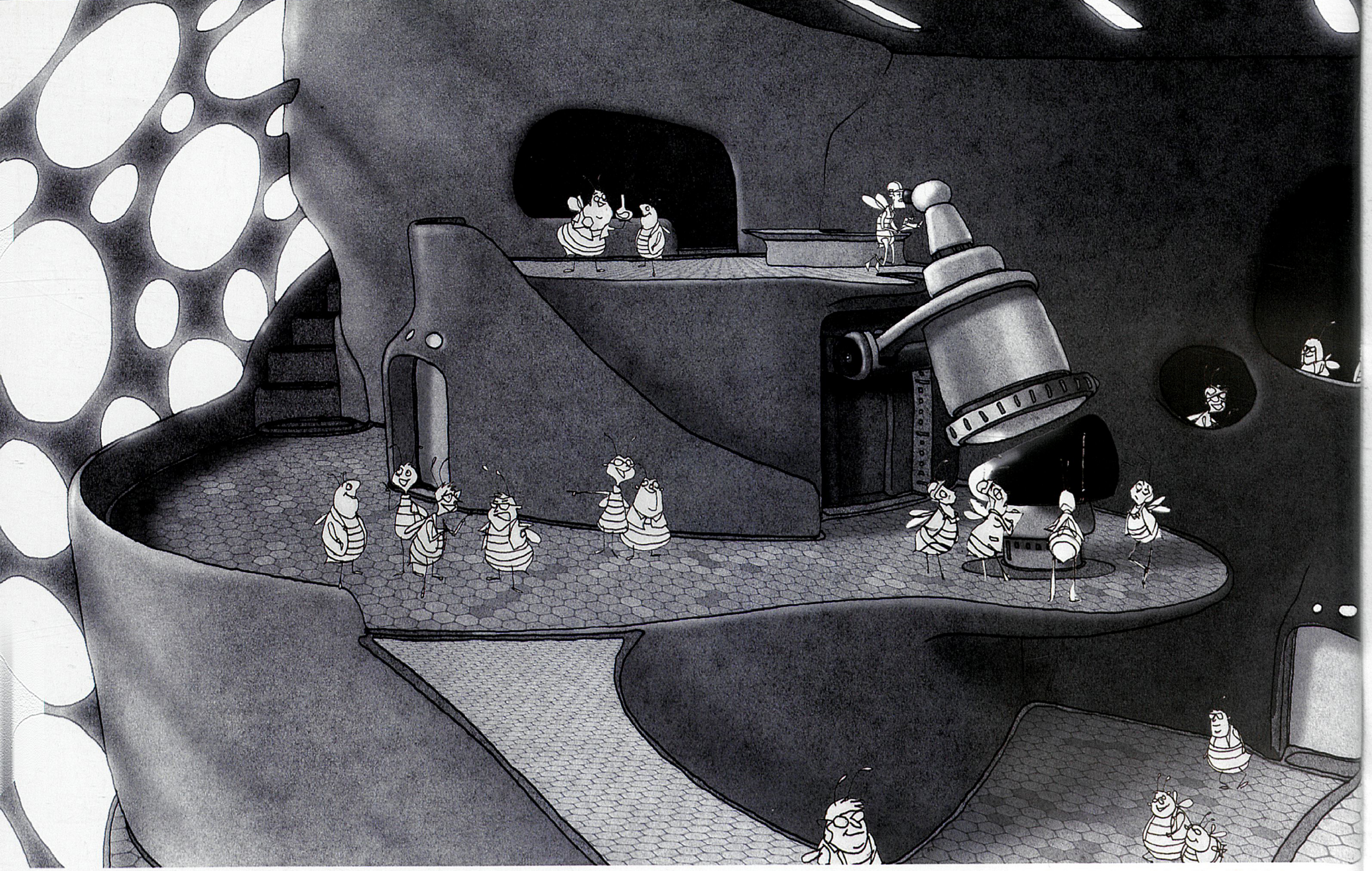
Bee buildings | Michael Isaak | pencil and Photoshop



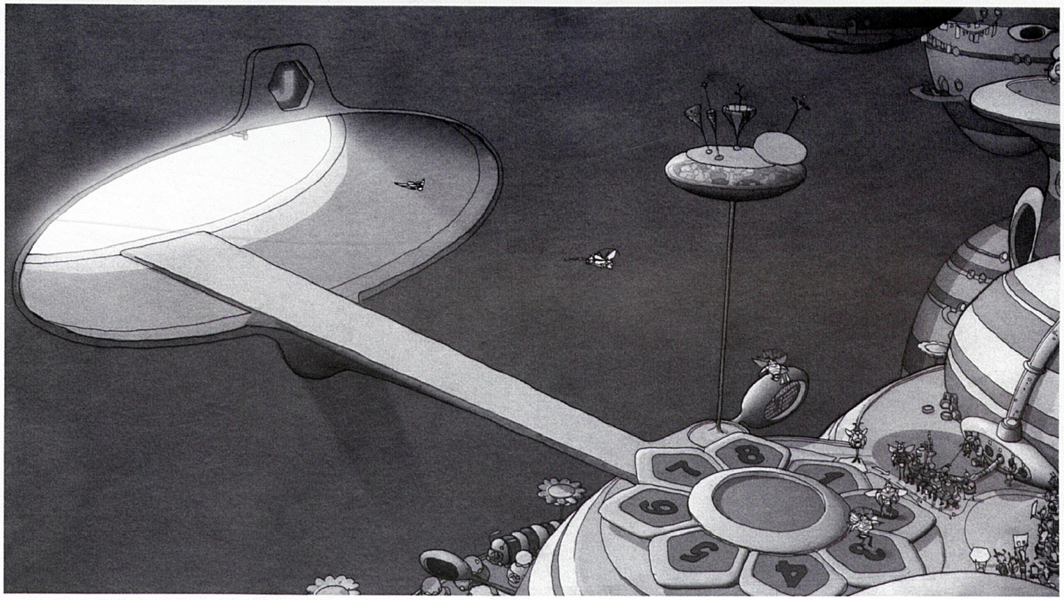
Skyways | Michael Isaak | pencil and Photoshop

Honey tanks | Michael Isaak | pencil and Photoshop



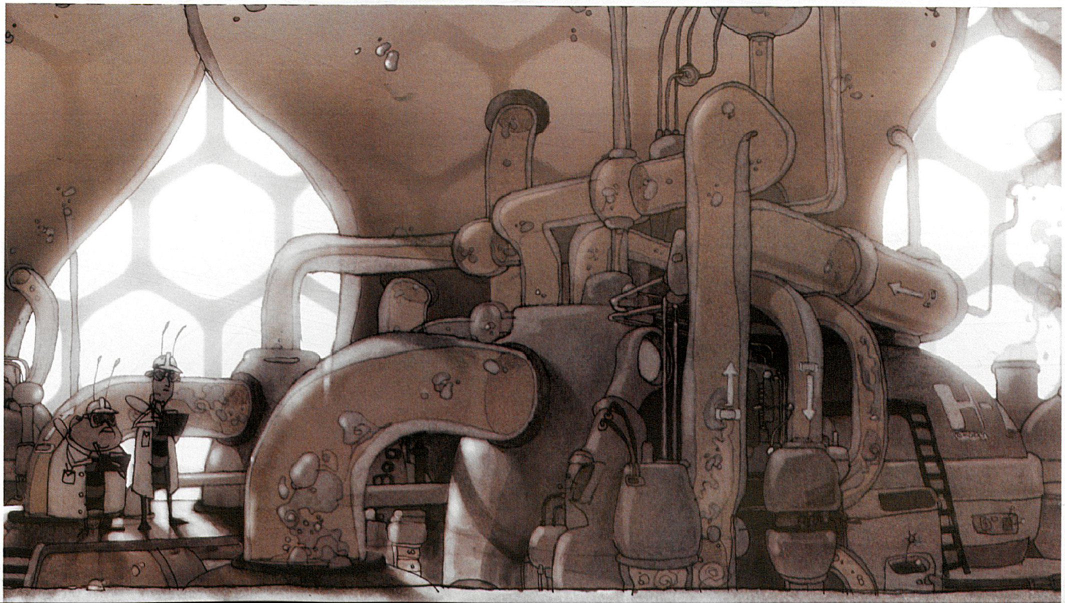


Honex | Michael Isaak | pencil and Photoshop



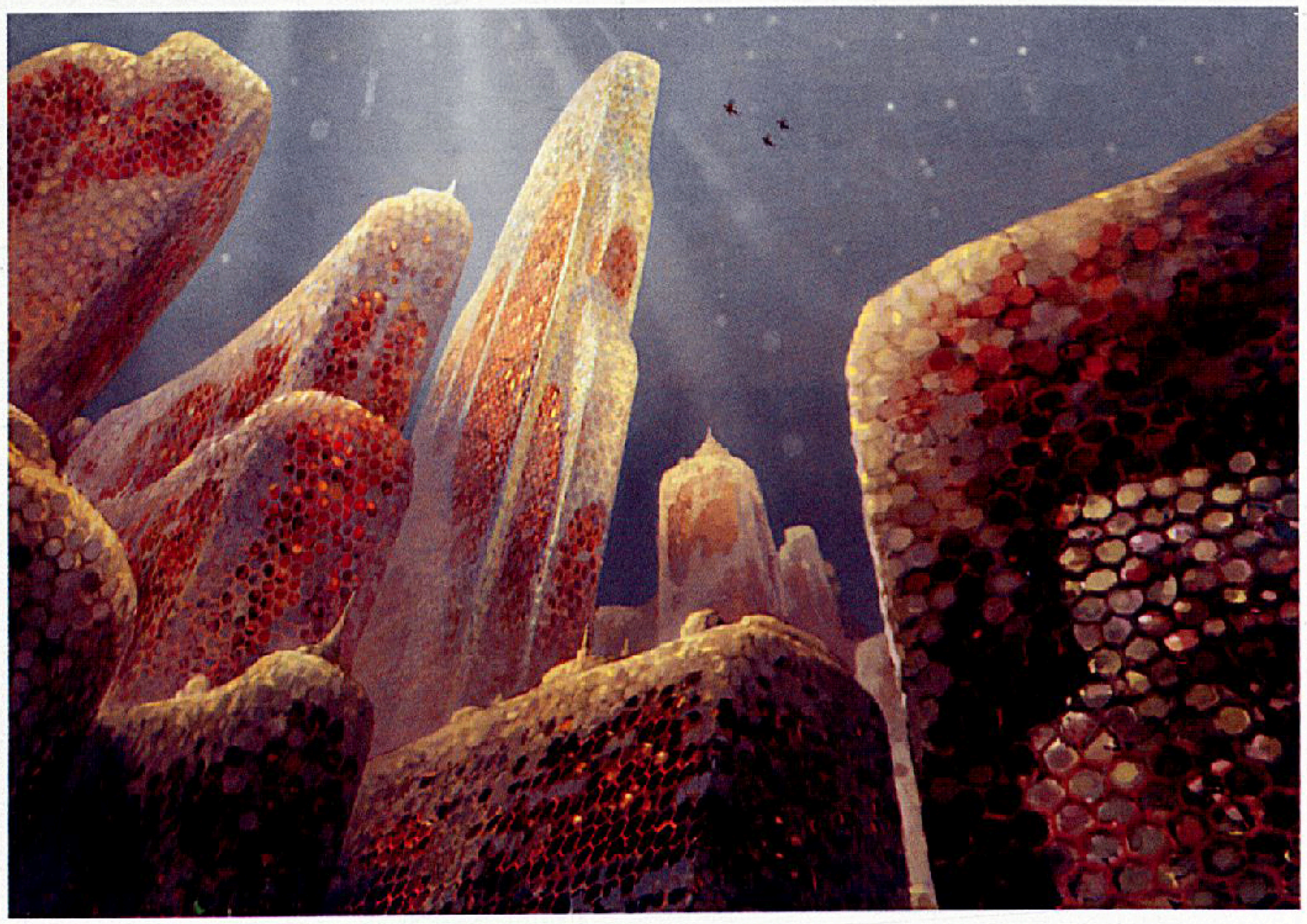
J-Gate | Michael Isaak | pencil and Photoshop

Honex | Michael Isaak | pencil and Photoshop



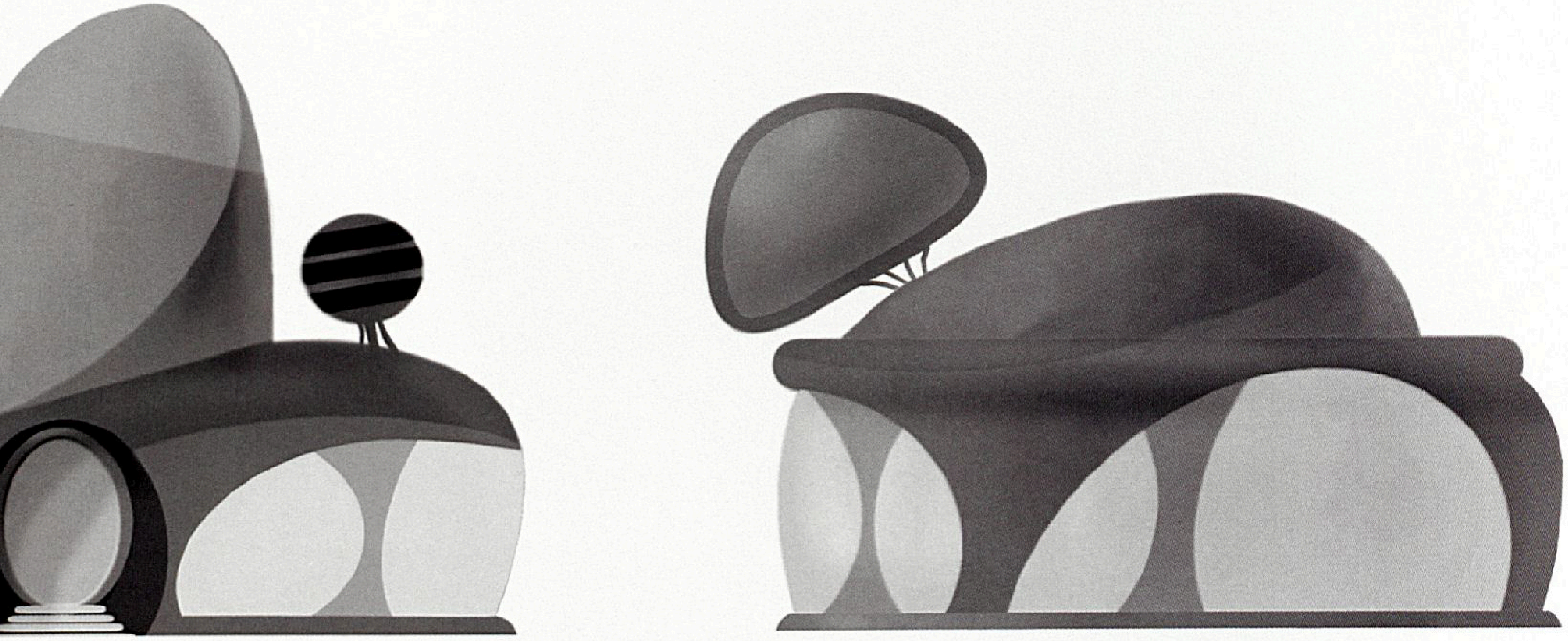
"Stylized realism, which I call stylism, is what we are aiming for. That's part of the charm of the movie in terms of the lighting and environments. They're designed and pushed slightly in proportion and color and texture. There are no realistic textures in the movie. They are textures that were photographed or referenced, then painted over. Everything is lit realistically, which grounds it in reality, but nothing is real . . . life."
—Simon J. Smith, director

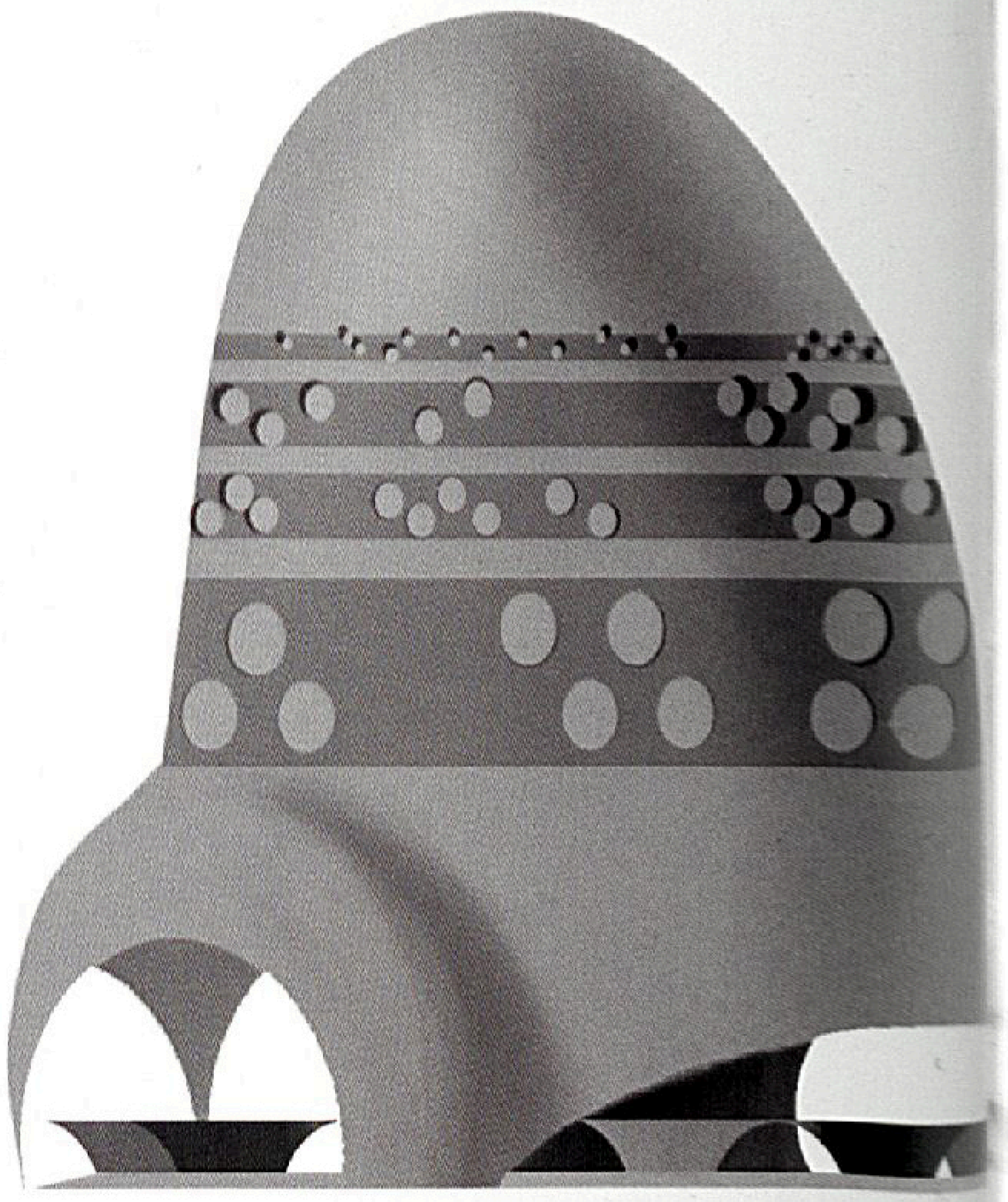
New Hive City | Zhaoping Wei | digital



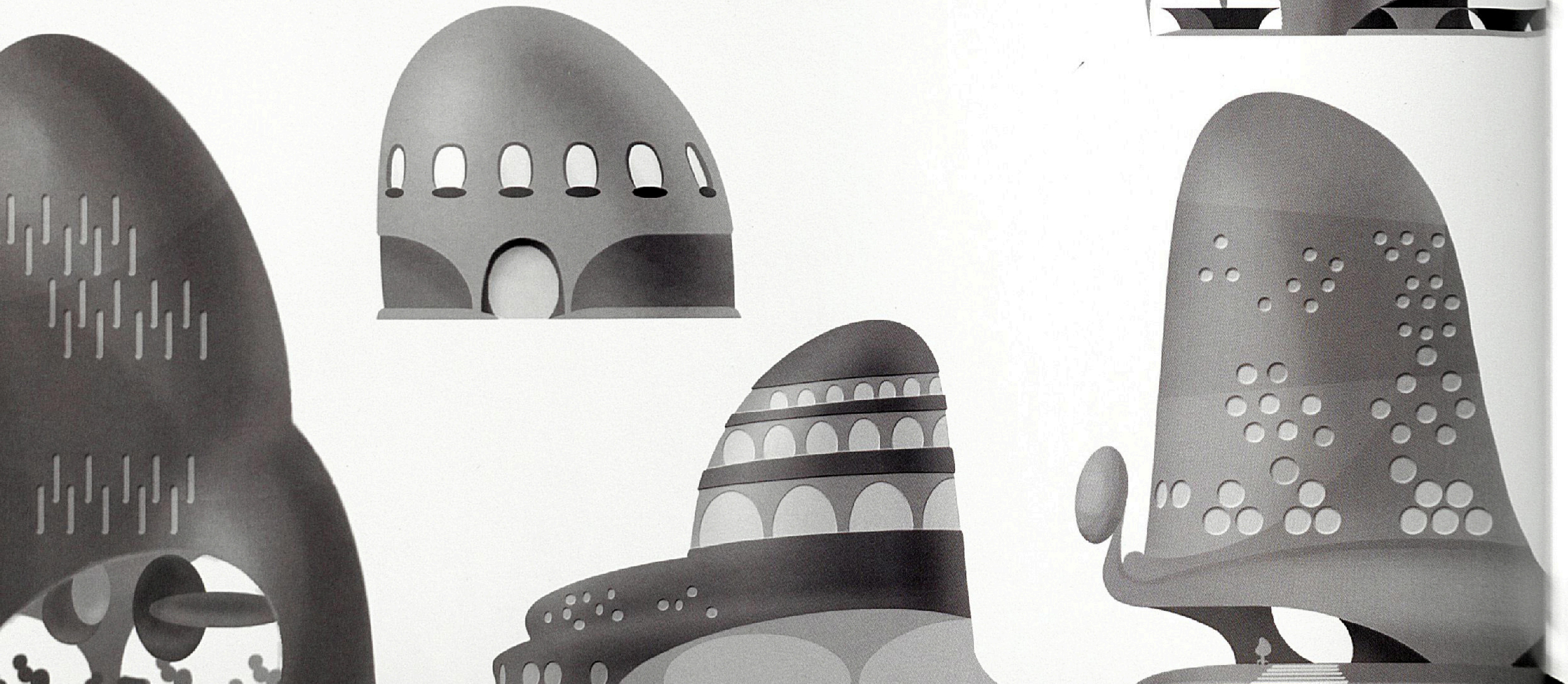
Hive view | Mike Hernandez | digital

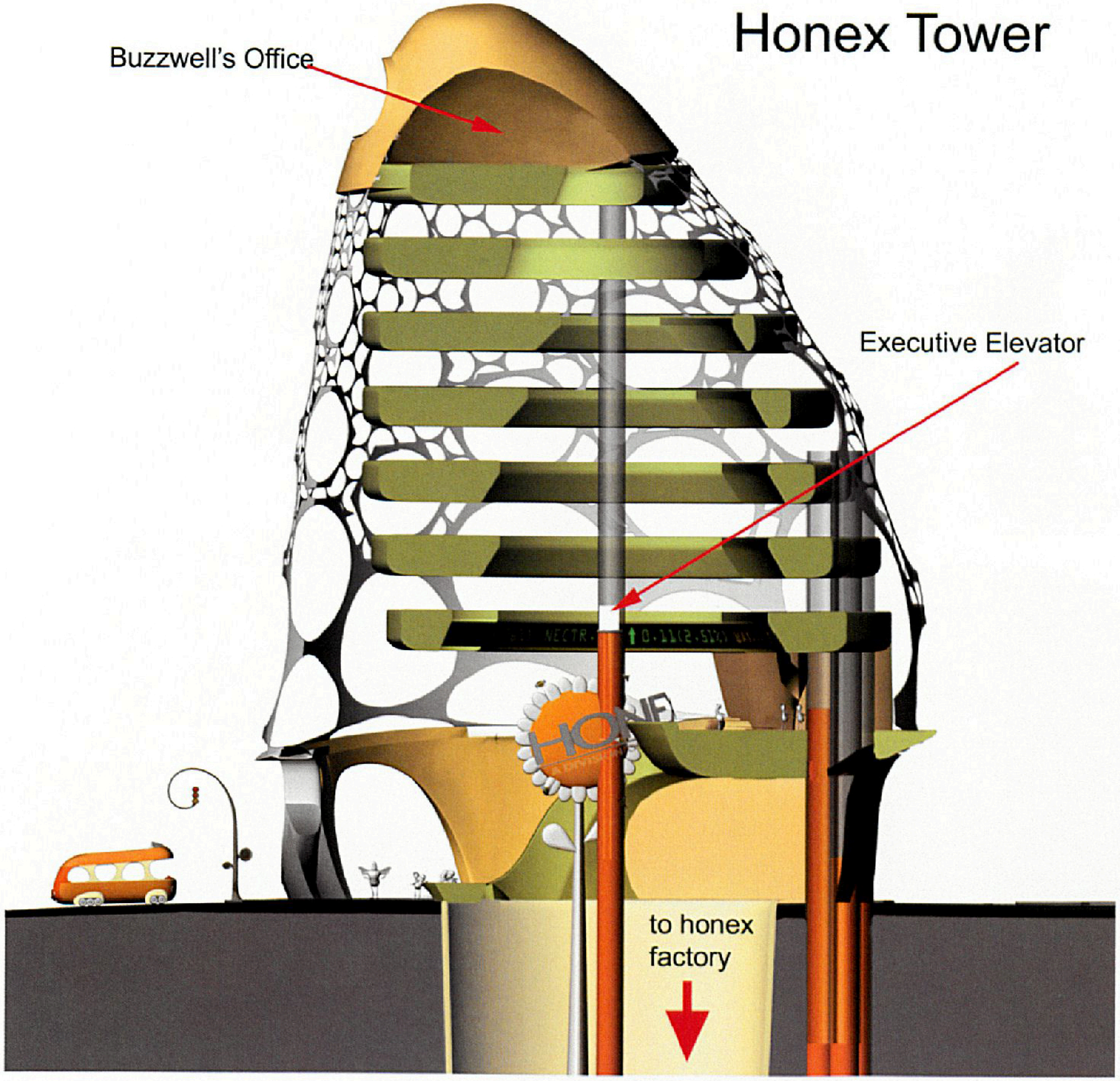
Bee City designs | Peter Maynez | pencil





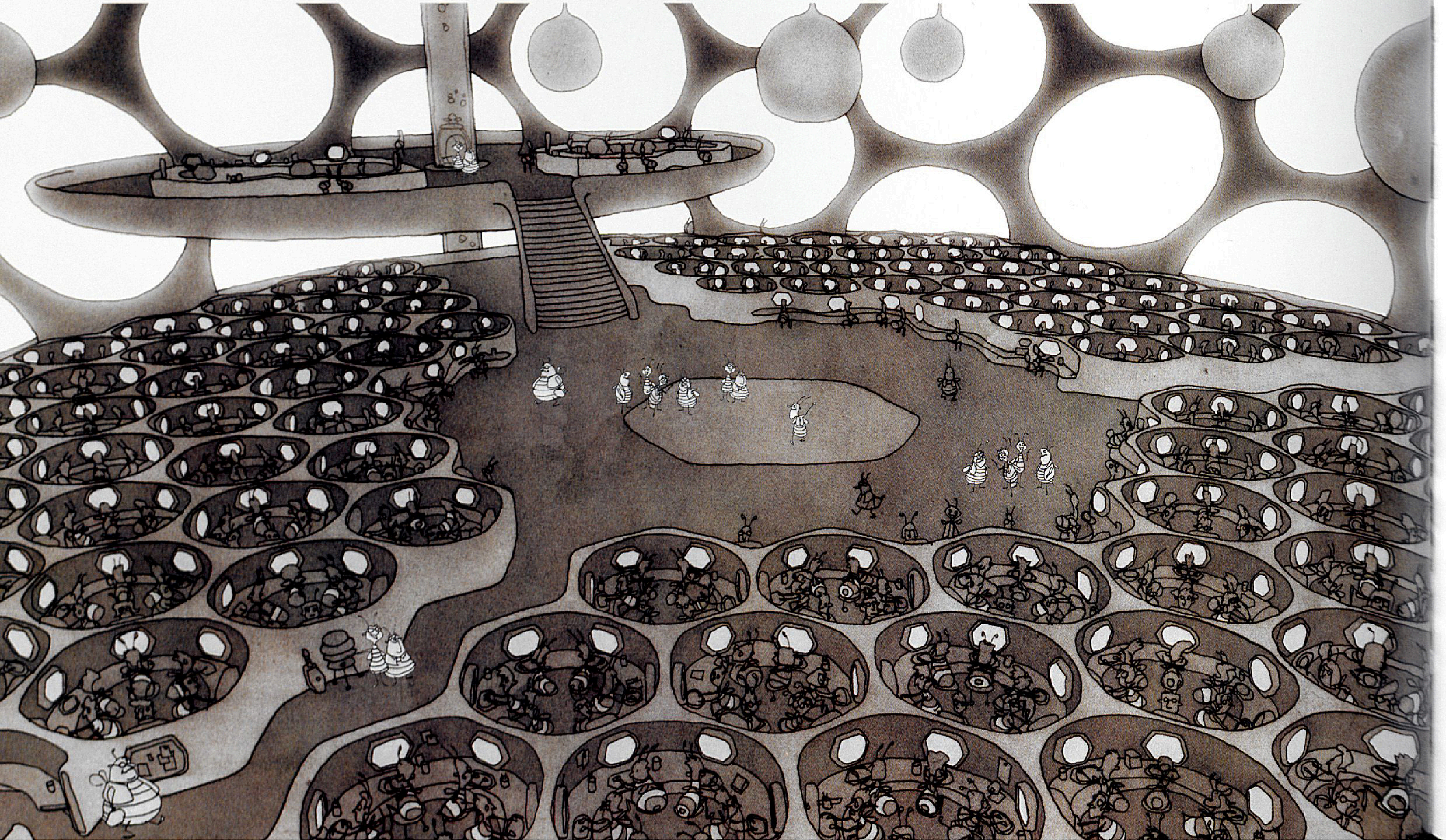
New Hive City buildings | Peter Maynez | digital

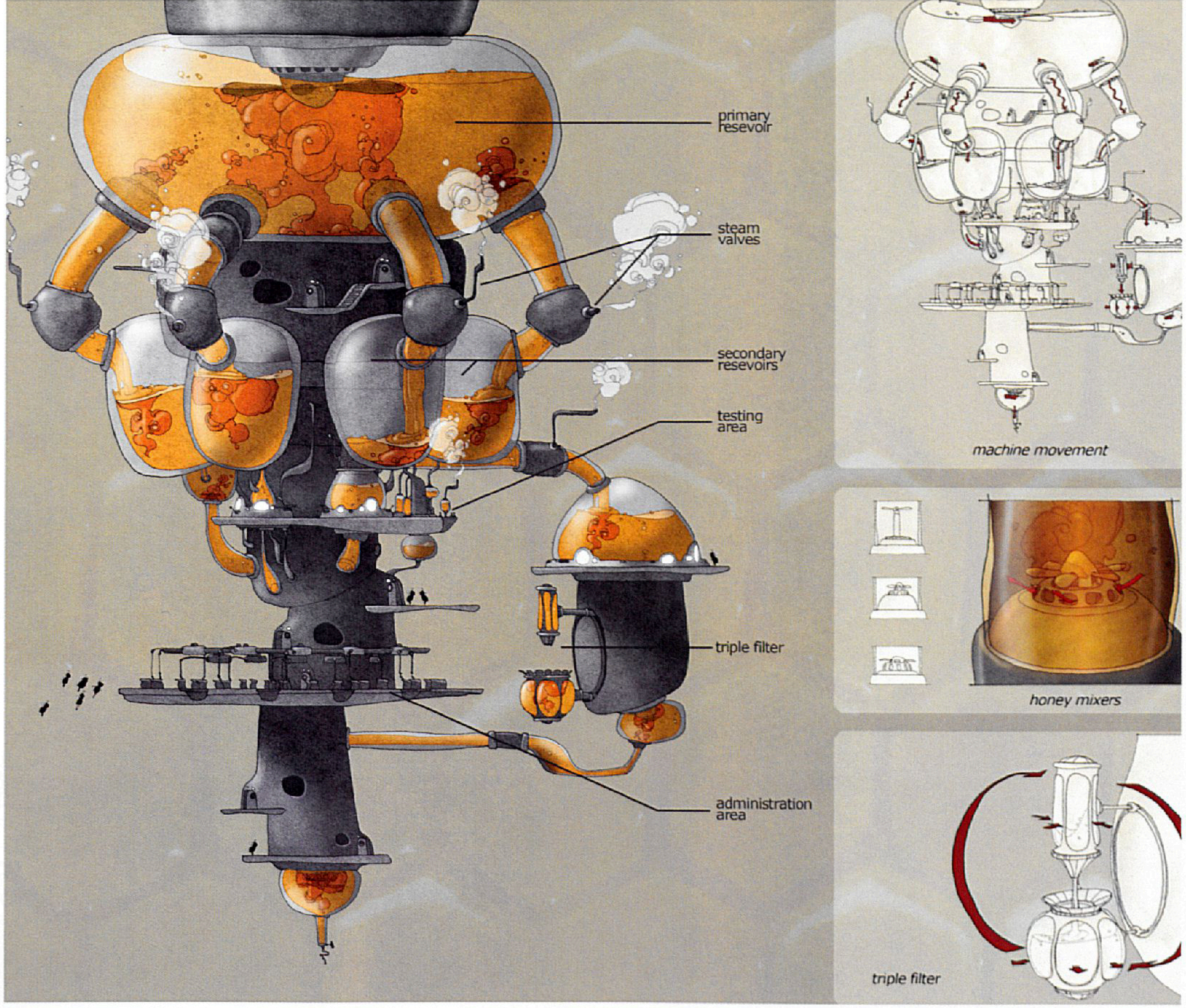




Honex tower | Peter Maynez | Maya and Photoshop

Honex offices | Michael Isaak | pencil and Photoshop

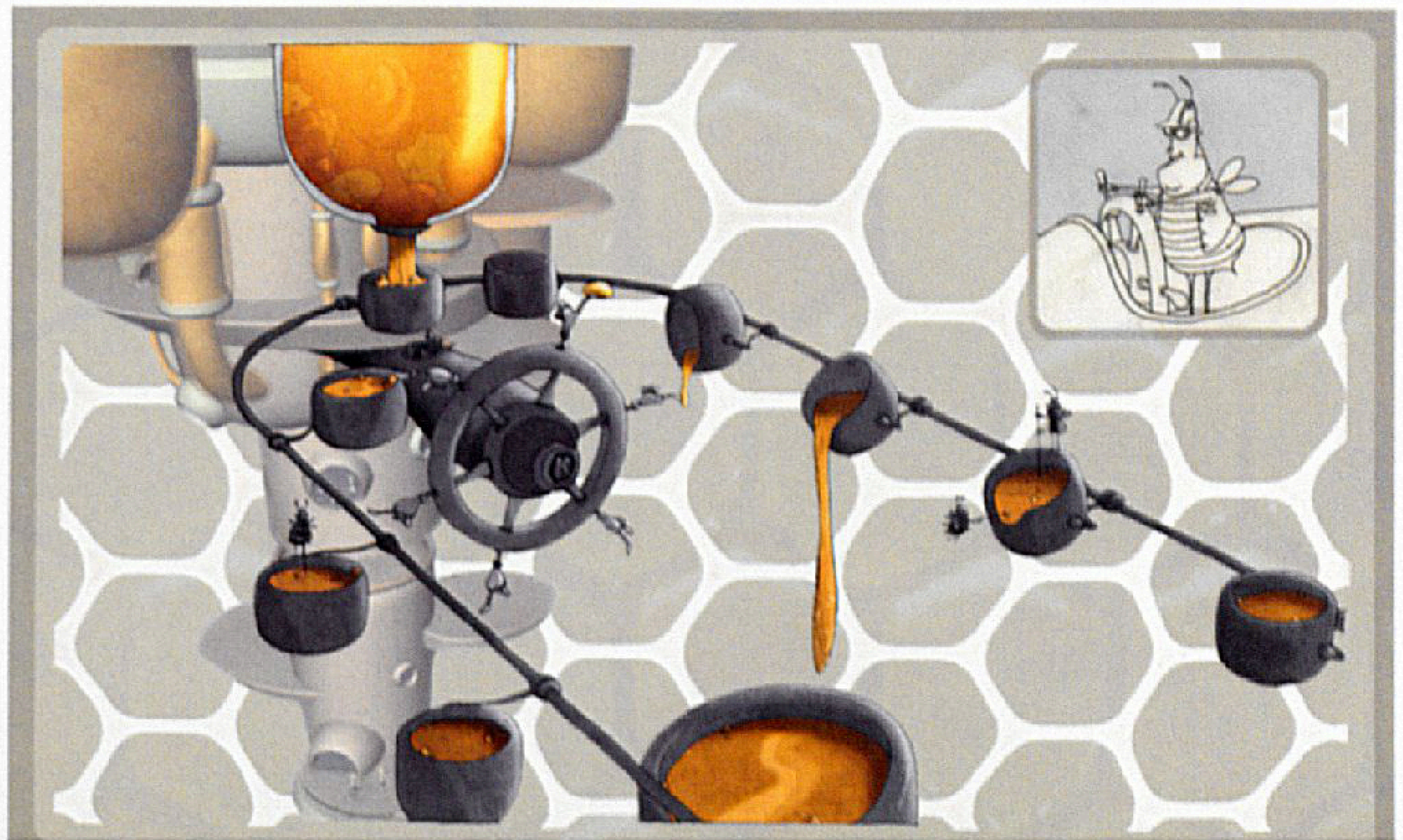




Honex machines | Michael Isaak | digital

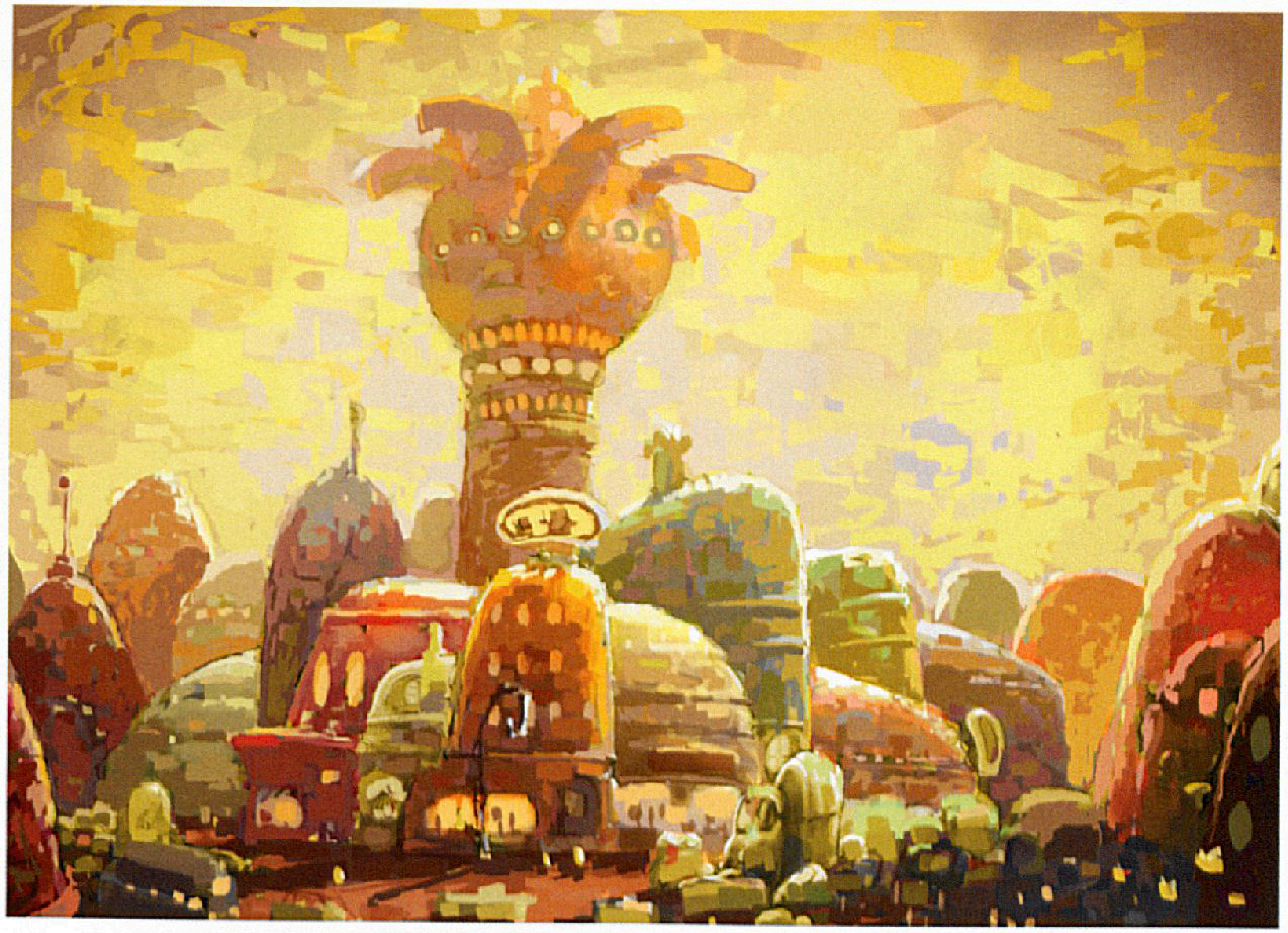
"The goal here is to show how symmetrical the Honex offices are, compared to the factory, where everything is more whimsical. All the offices look the same, and everyone does the same things over and over again. Barry doesn't want to end up here."
—Christophe Lautrette, art director

Honex machines | Michael Isaak | digital



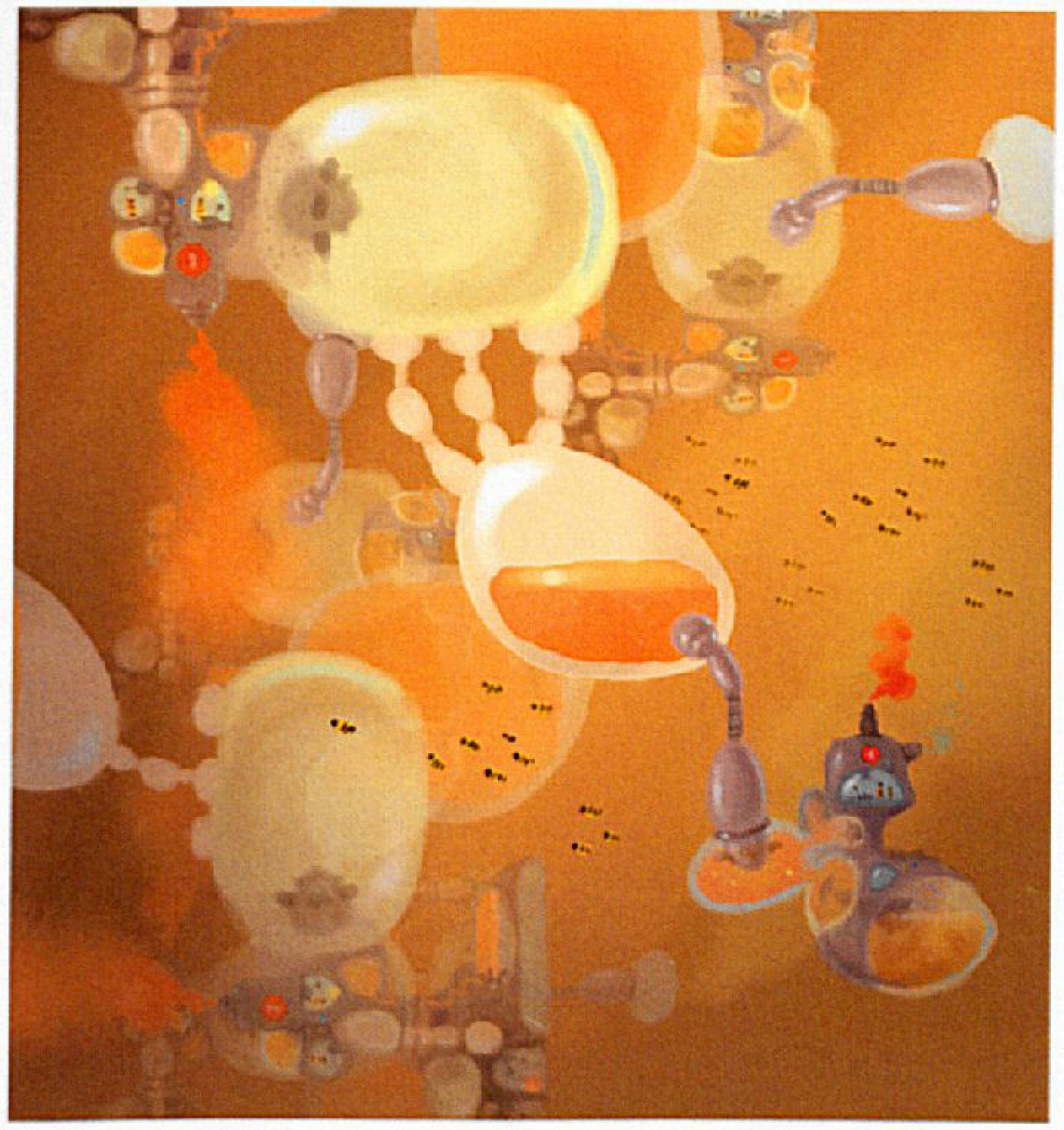
Honex | Mike Hernandez | digital

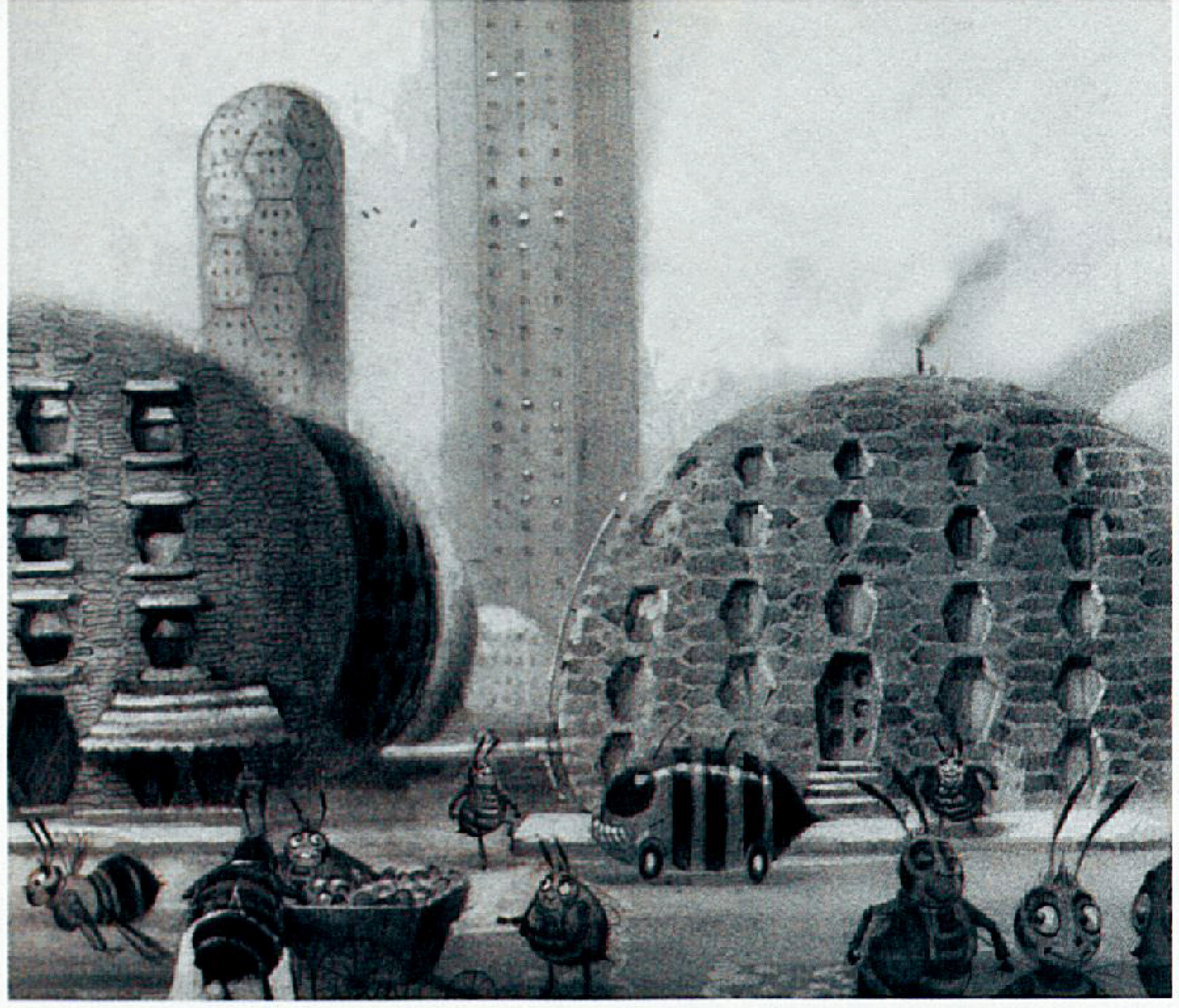
"This is one interpretation of Honex, the factory where the bees process honey. It was an early investigation of what the colors could be."
—Christophe Lautrette, art director



Hive, with early Queen tower | Christophe Lautrette, drawing; Mike Hernandez, color | pencil and Photoshop

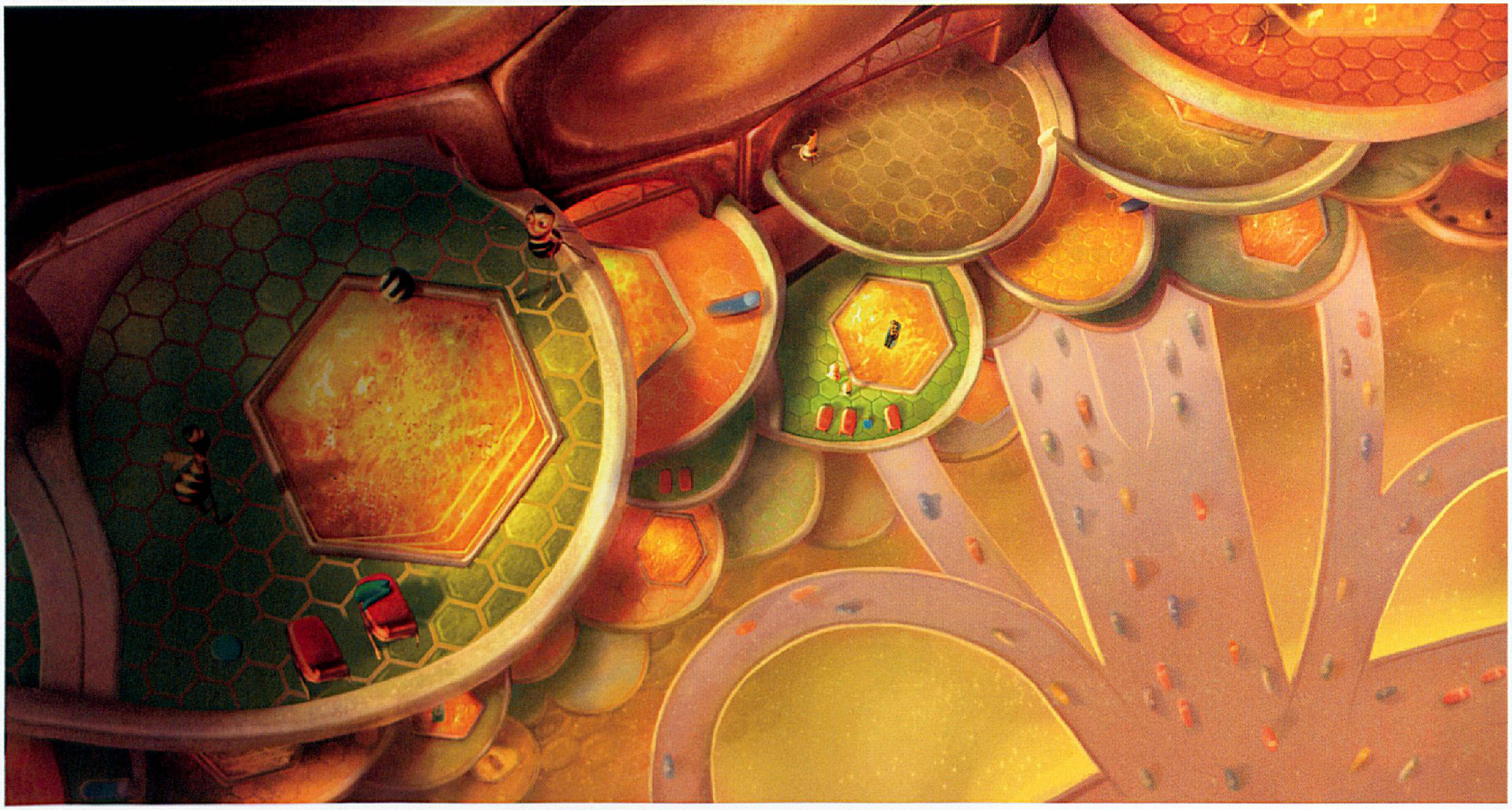
Honex | Christophe Lautrette | digital

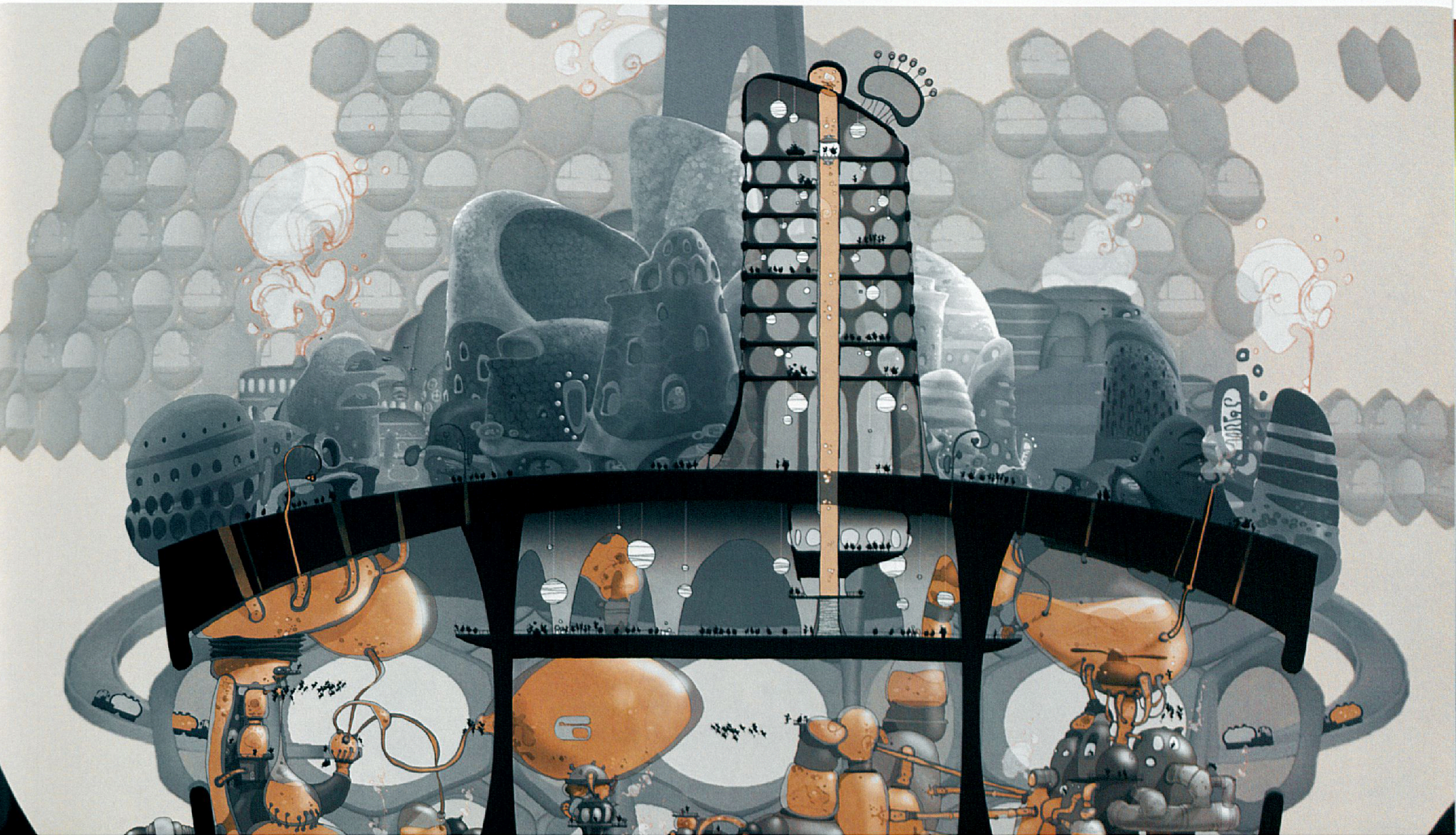




Hive buildings | Rich Daskas | pencil

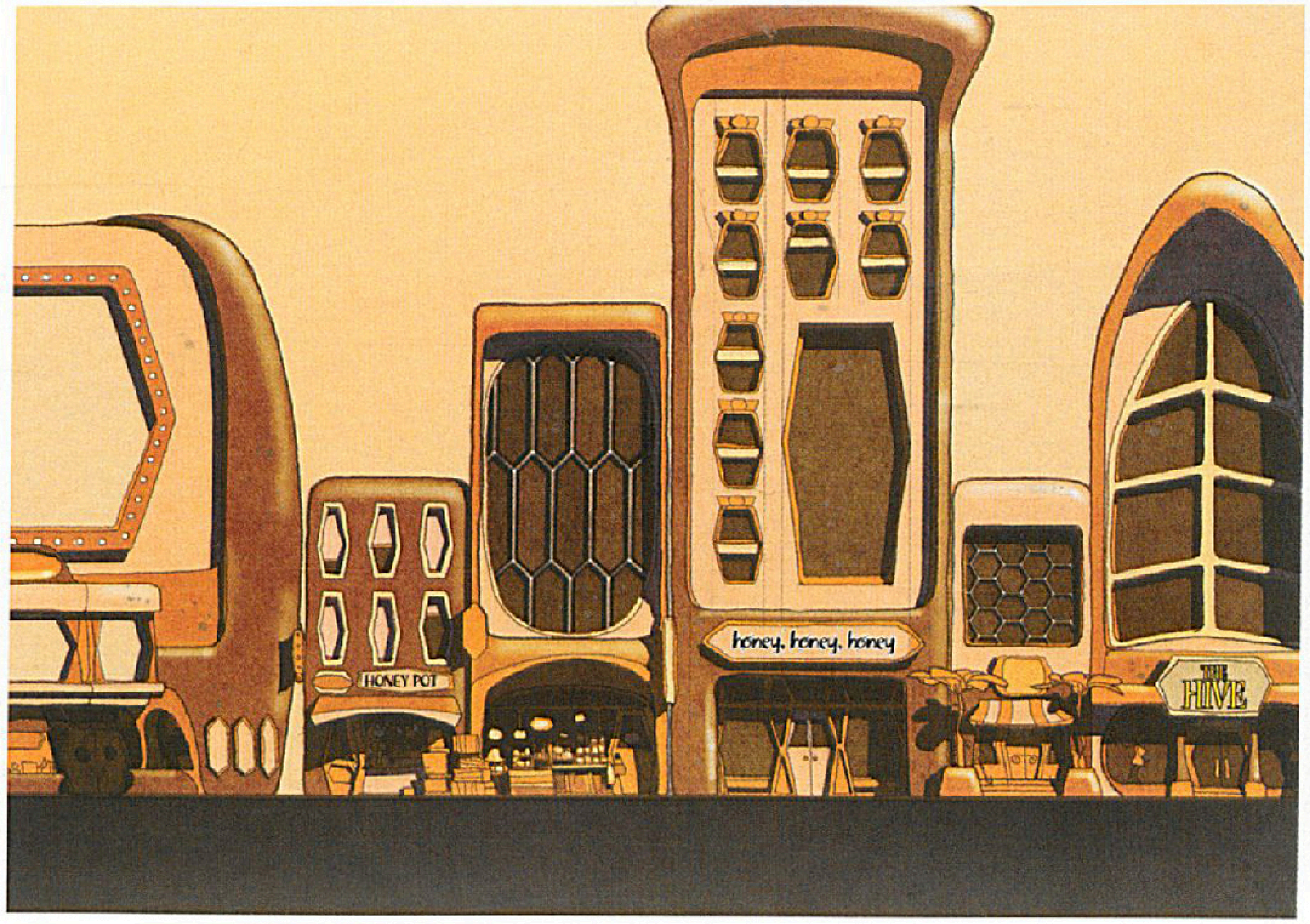
Bee suburbs | Mike Hernandez | digital



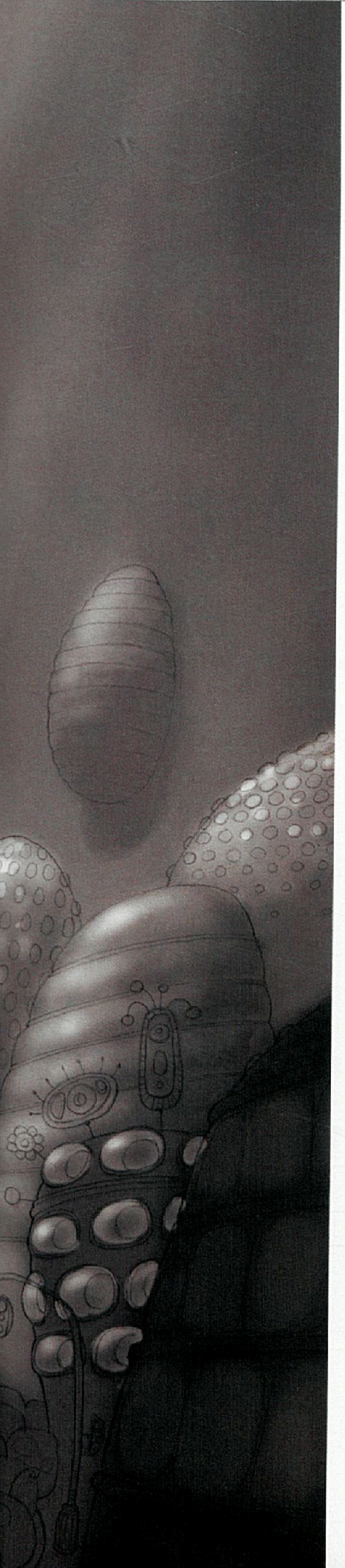


Hive interior | Michael Isaak and Mike Hernandez | pencil and Photoshop

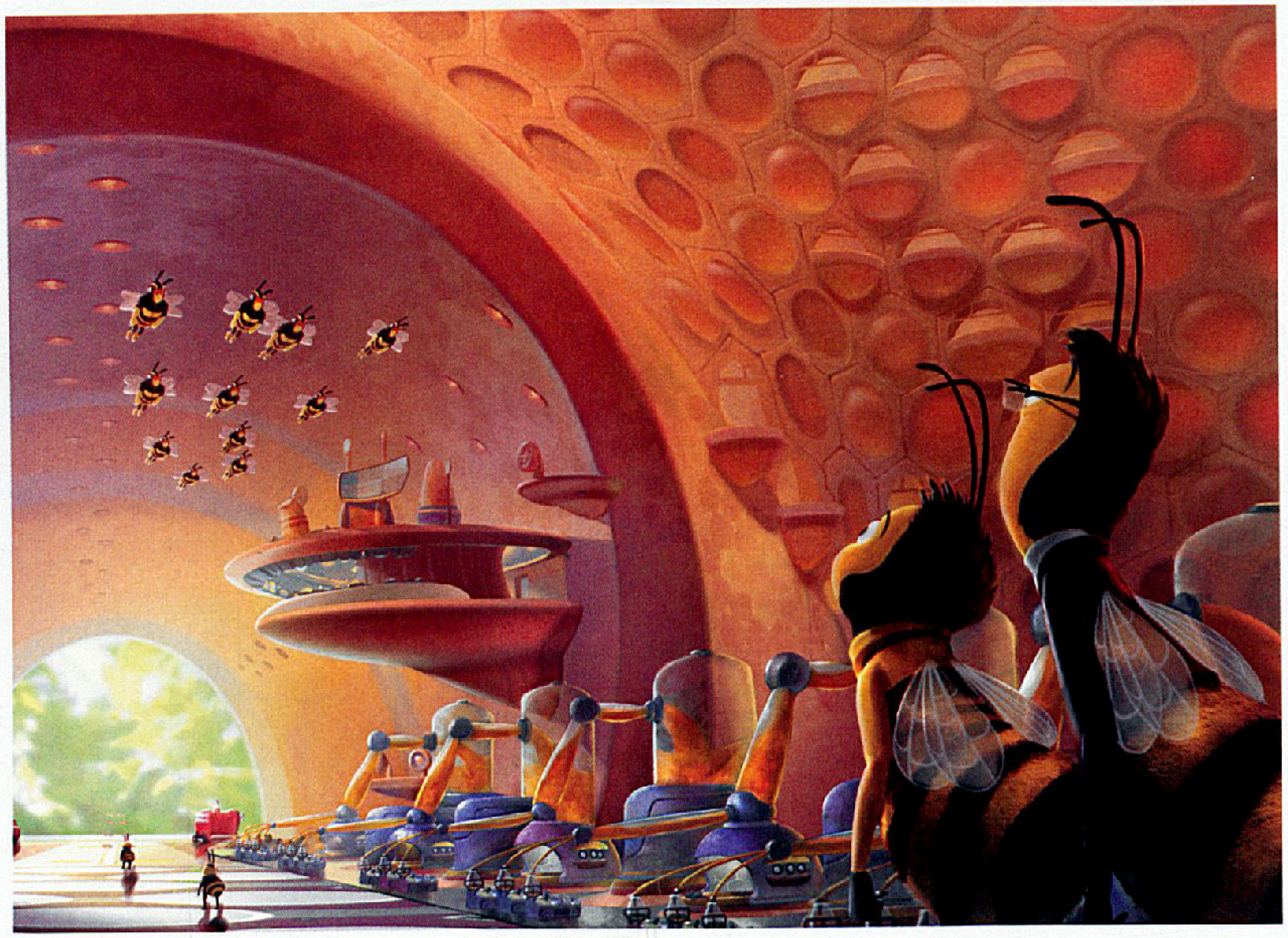
"This is a tonal done in pencil. At first, I don't want to give the directors any hint about color—it's just the shape. The wrong color on top of a nice drawing might get rejected."
—Christophe Lautrette, art director



Bee street design | Michael Isaak | pencil and Photoshop



City tonal | Christophe Lautrette, drawing; Mike Hernandez, tonal | pencil

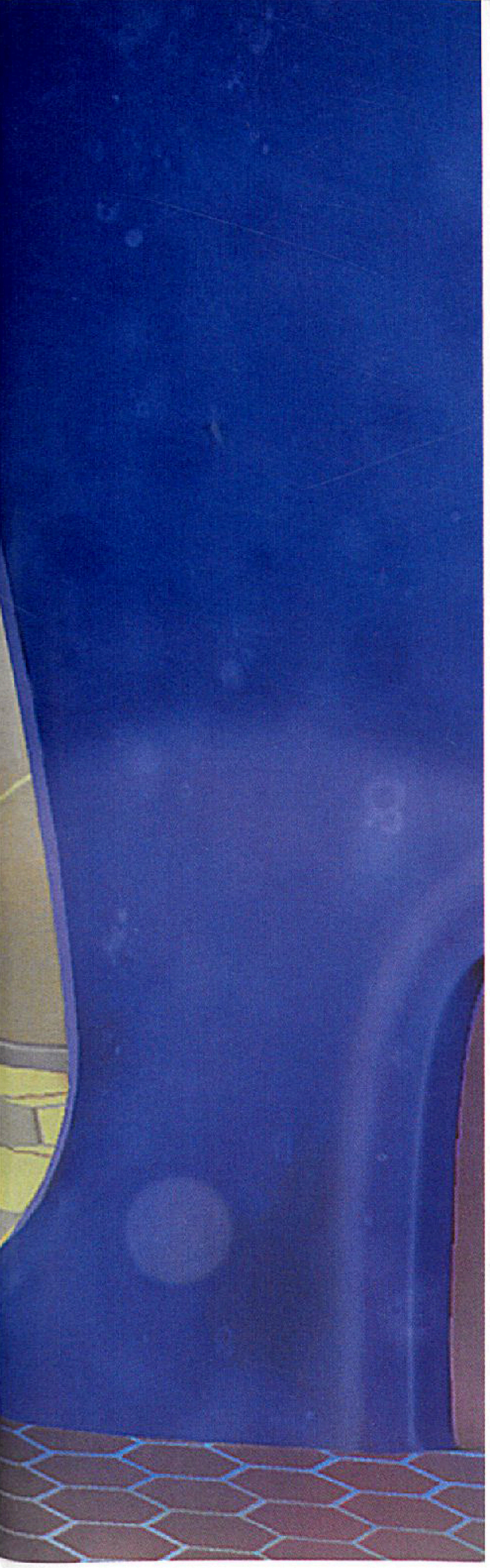


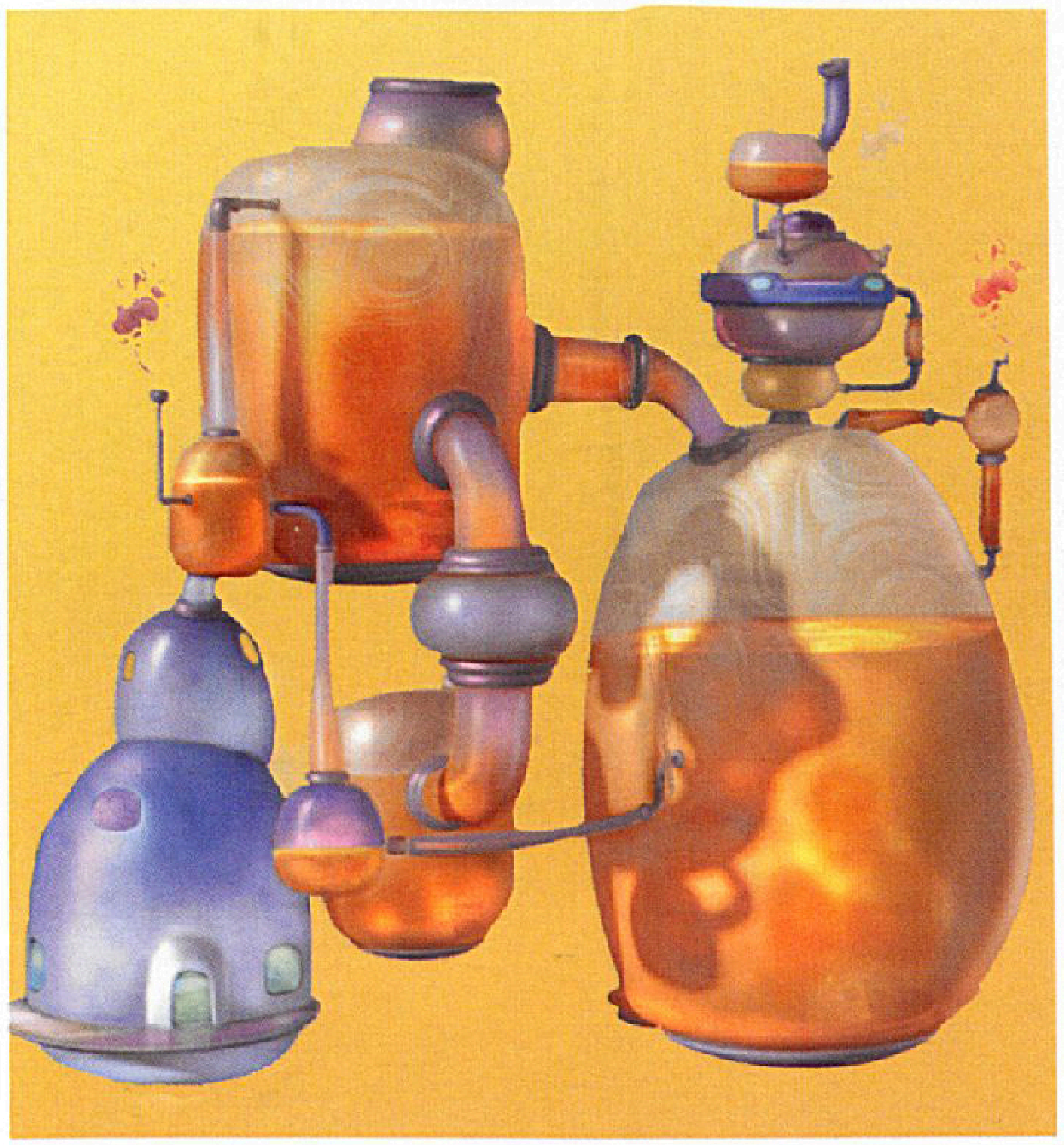
J-Gate color key | Paul Duncan | digital

New Hive City | Kirsten Kawamura | digital

NEWS
BUMBLE COFFEE
LOFT

Honex | Mike Hernandez | digital

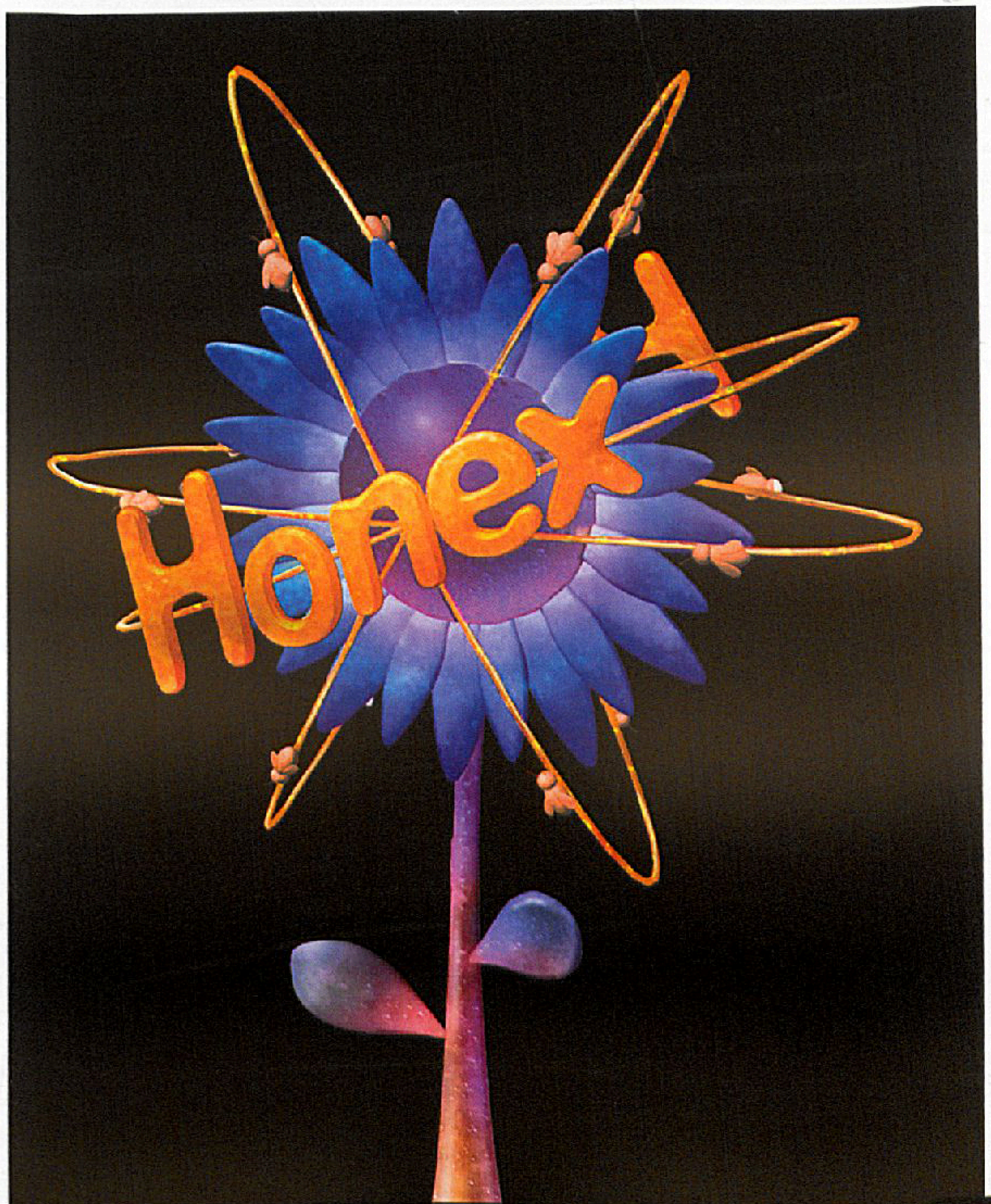


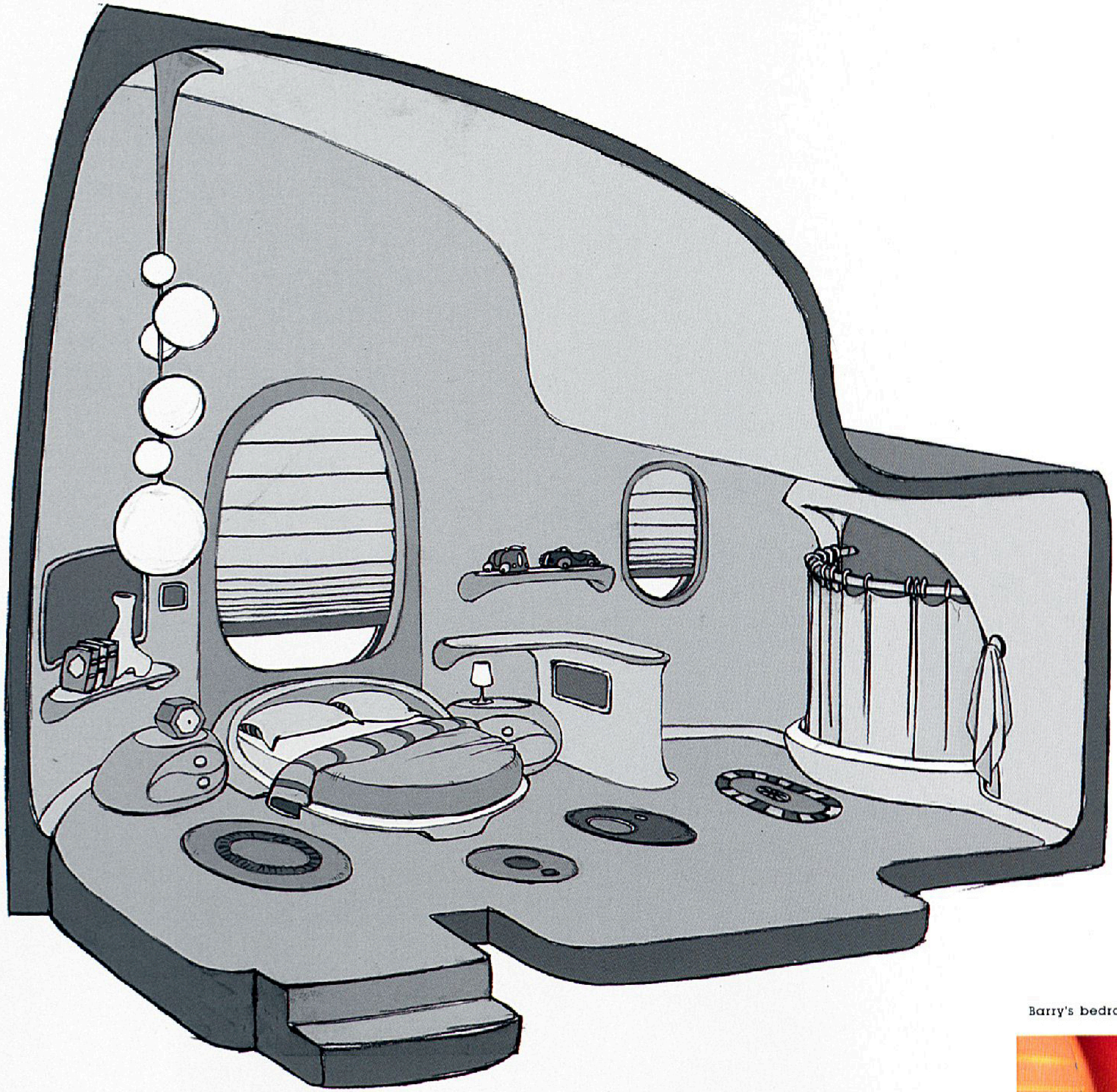


Honex vats | Mike Hernandez and Kirsten Kawamura | digital

Honex machine | Mike Hernandez | digital

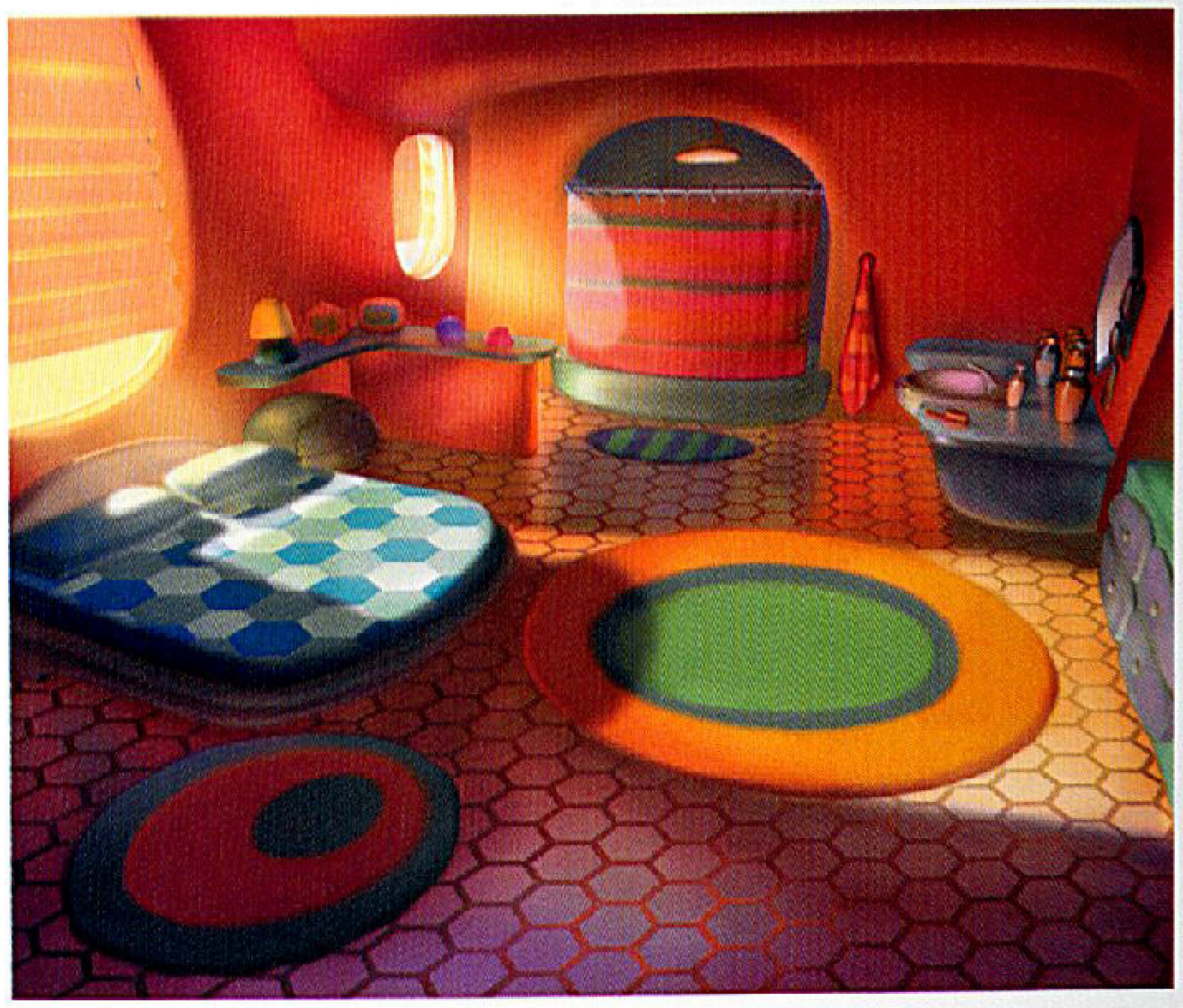
Honex sign | Mike Hernandez | digital





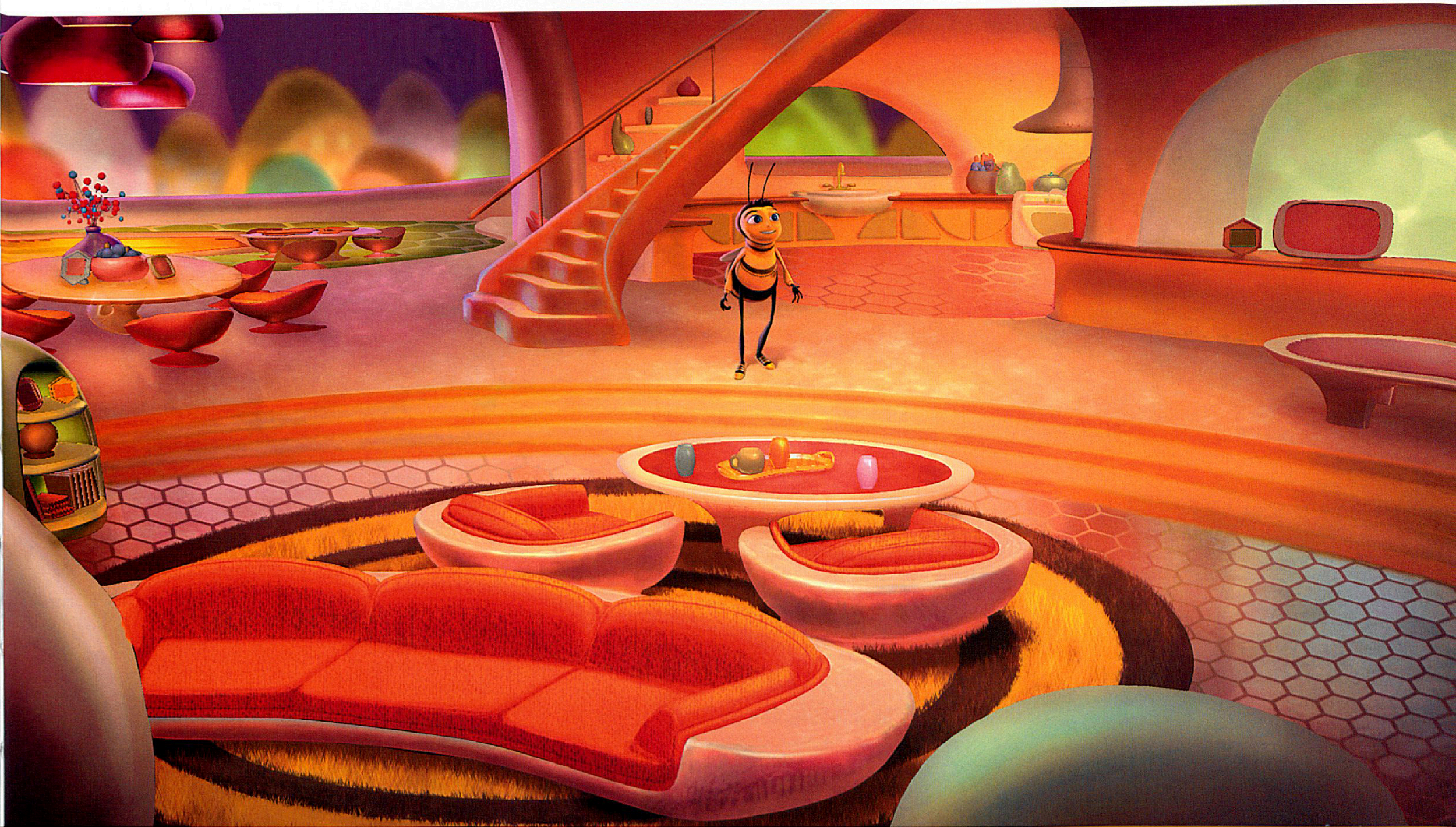
Barry's bedroom cutaway | Peter Maynez | pencil and Photoshop

Barry's bedroom | Peter Maynez, layout; Kirsten Kawamura, color | digital



Bee buildings | Mike Hernandez and Paul Duncan | digital

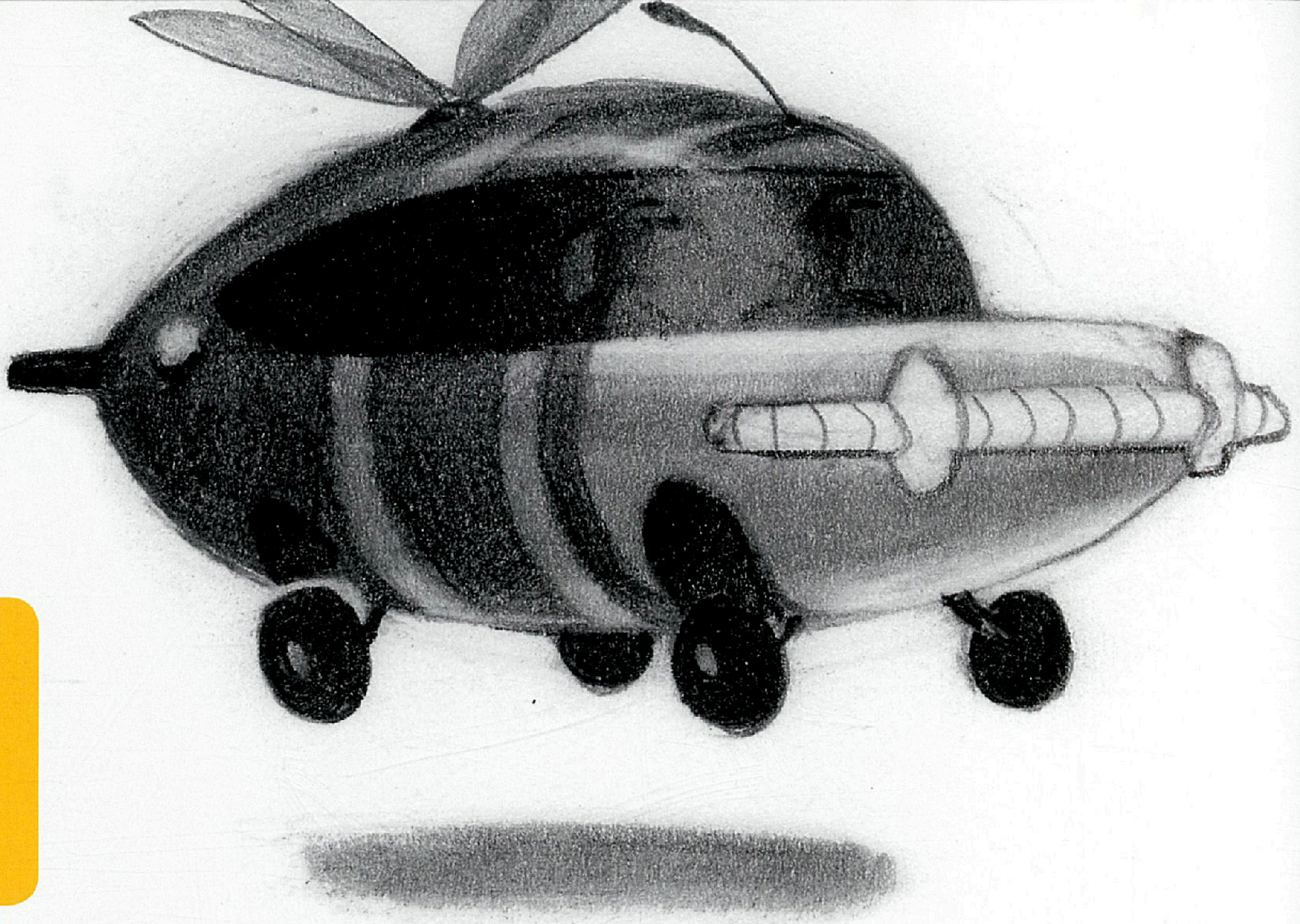
Apartment interior concept | Mike Hernandez | digital



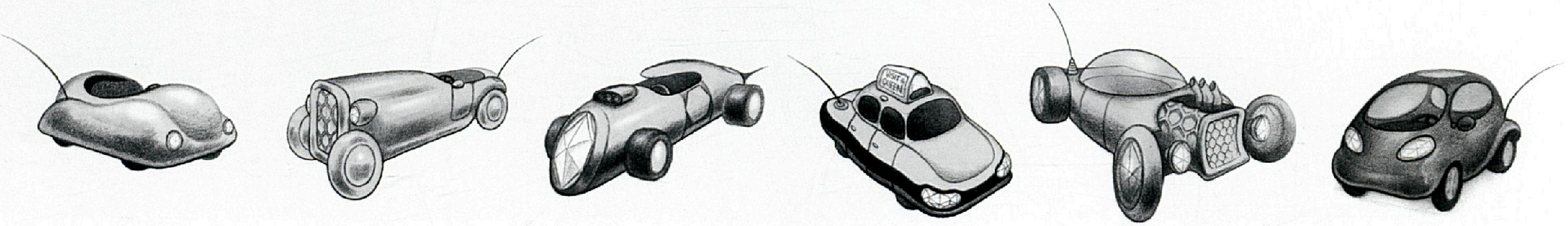
Bee city | Kirsten Kawamura, background/color; Christophe Lautrette, characters | digital

"This painting was the first one that set the hive colors for the film: not too brown—honey colors plus greens, blue, and red. This was the pivot point for the colors."
—Christophe Lautrette, art director

Bee Vehicles

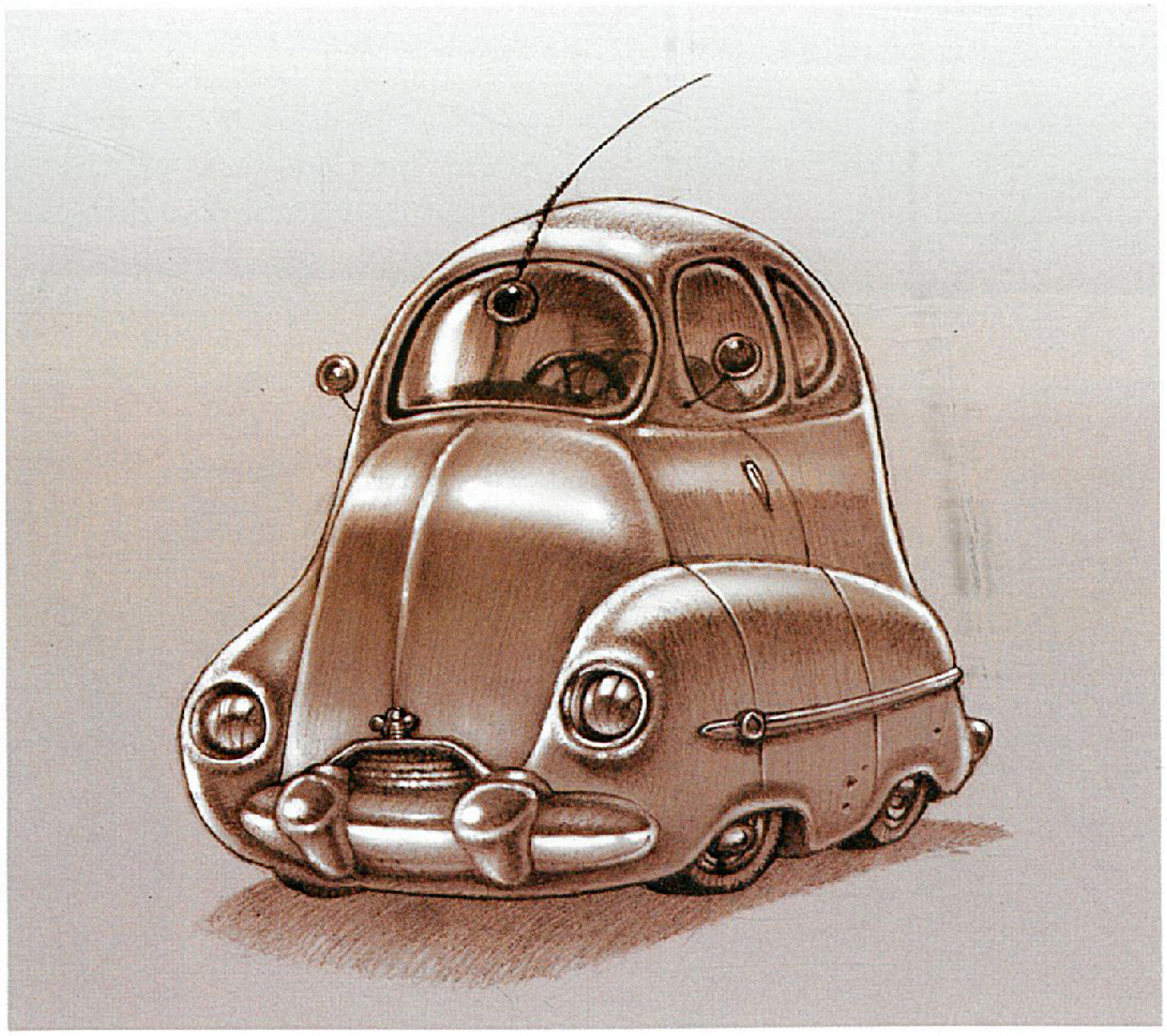


"Pete Maynez did a lot of car design at the beginning. At one point we were thinking the cars could fly as well as the bees—with stripes as well. It was too sci-fi, so we grounded the cars."
—Christophe Lautrette, art director



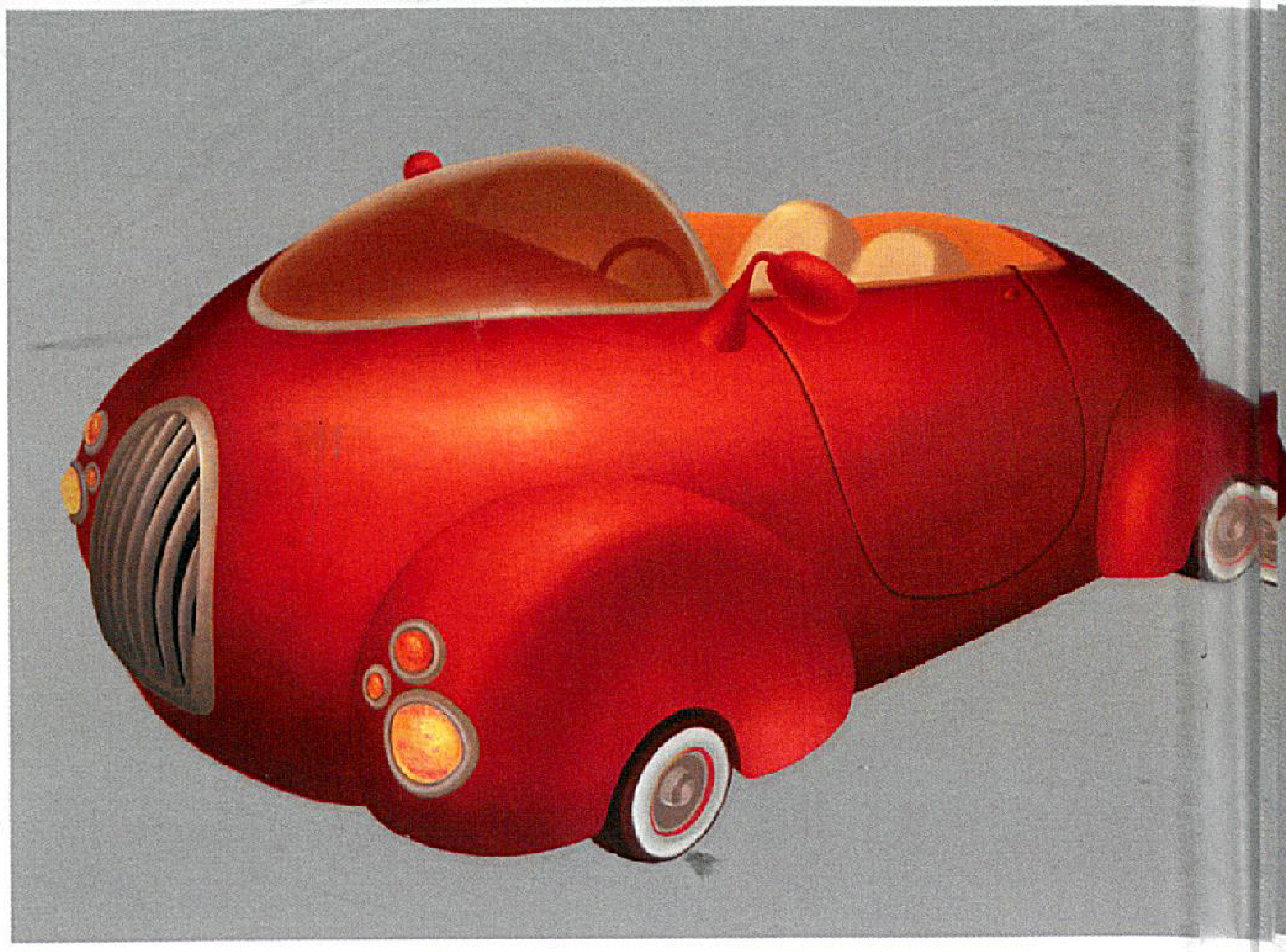
(Top to bottom)
Bee car | Peter Maynez | pencil
Bee-mobiles | Steve Pilcher | pencil
Wax cars | Brett Nystul | digital

Car concept | Christophe Lautrette | pencil



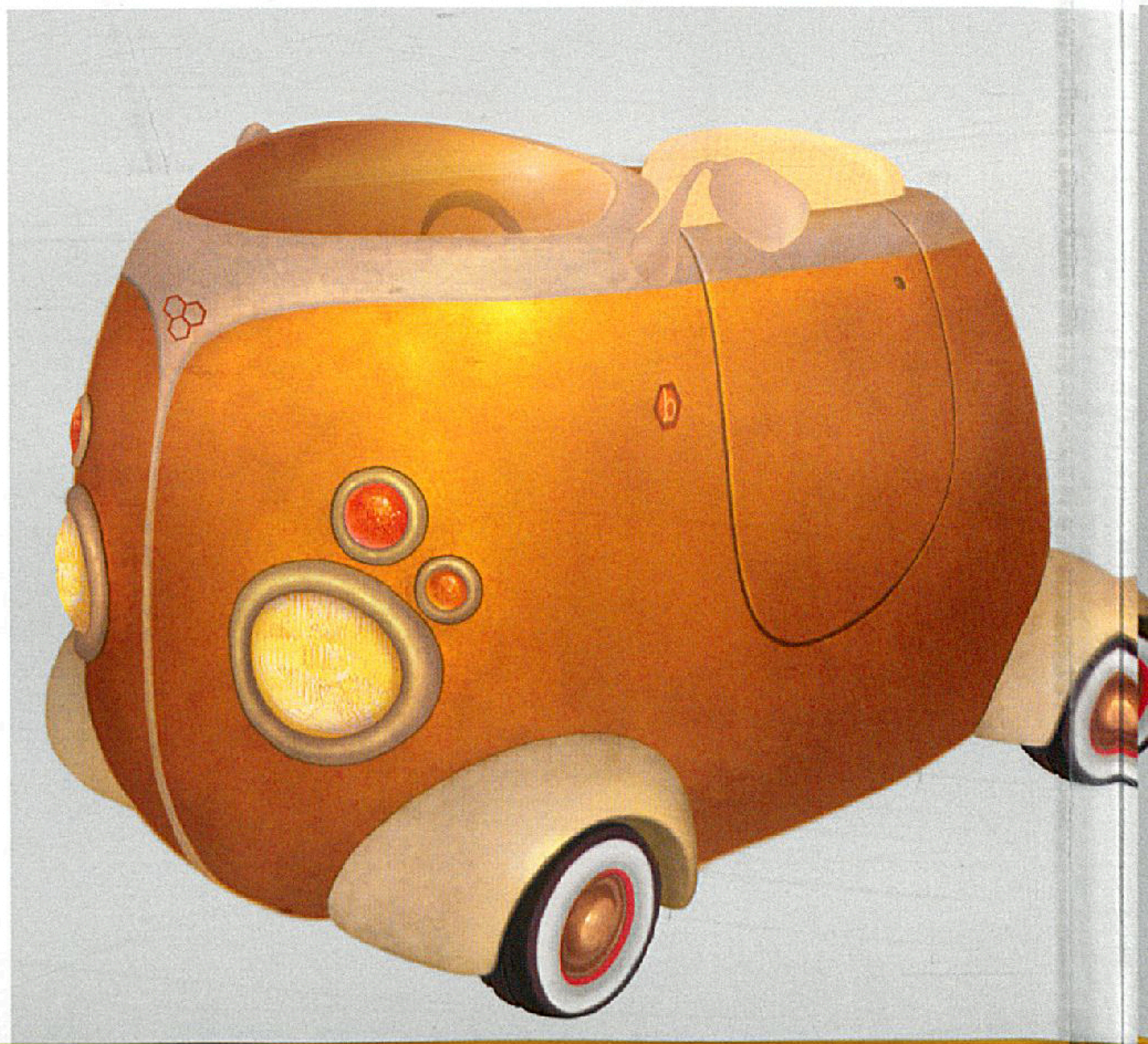
“There is no glass in the bee world, not in the clear sense of it. That’s why it’s so confounding to them. So, in this case, our cars are all open. They have a windshield, but it’s like a crystallized-sugar kind of thing. It is translucent. You can see through it, but it’s got a tint and it’s very tangible.”
—Christophe Lautrette, art director

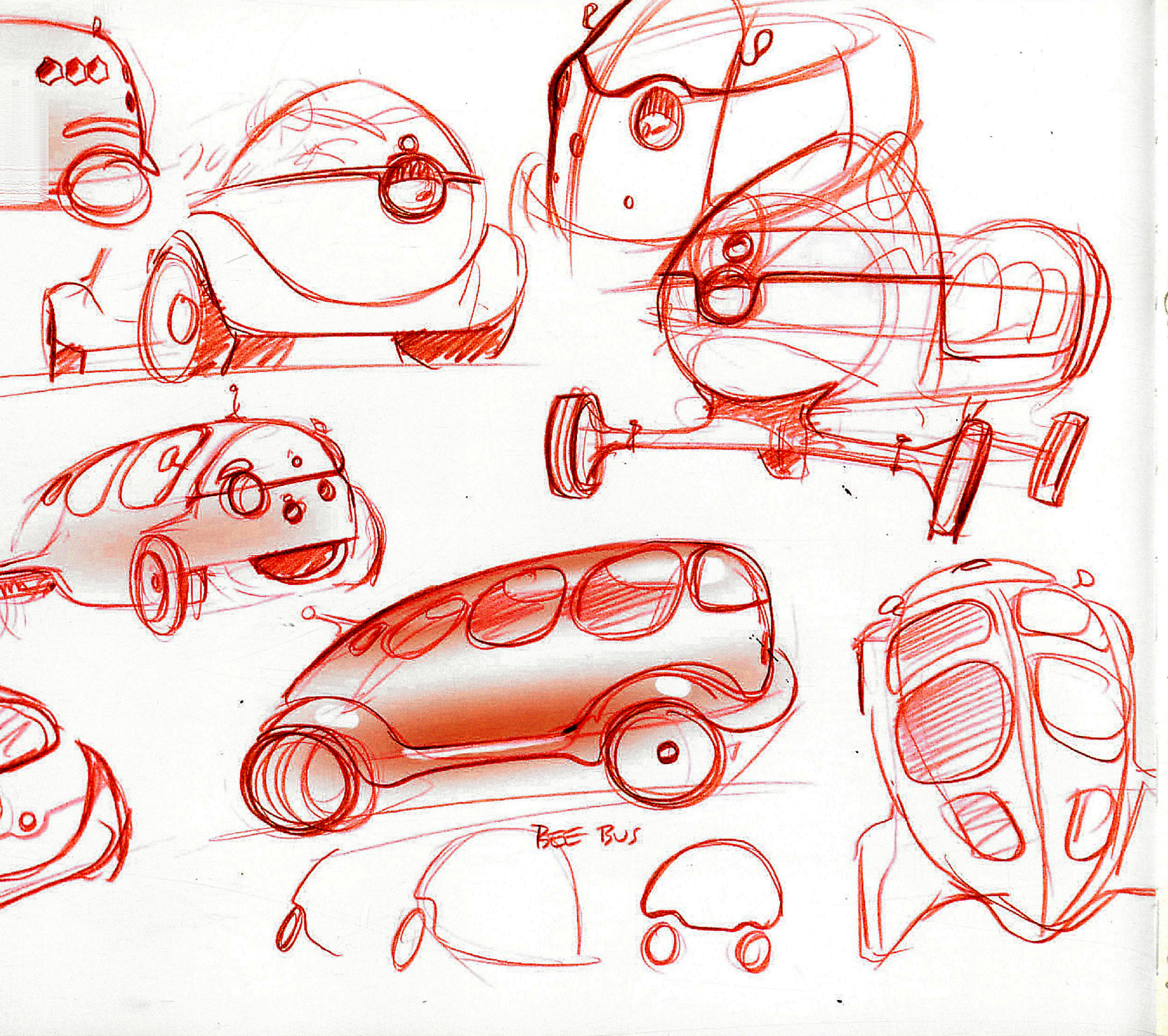
(Page 56) **Early cars** | Grant Larson | pencil
(Page 57) **Car sketches** | Christophe Lautrette | pencil

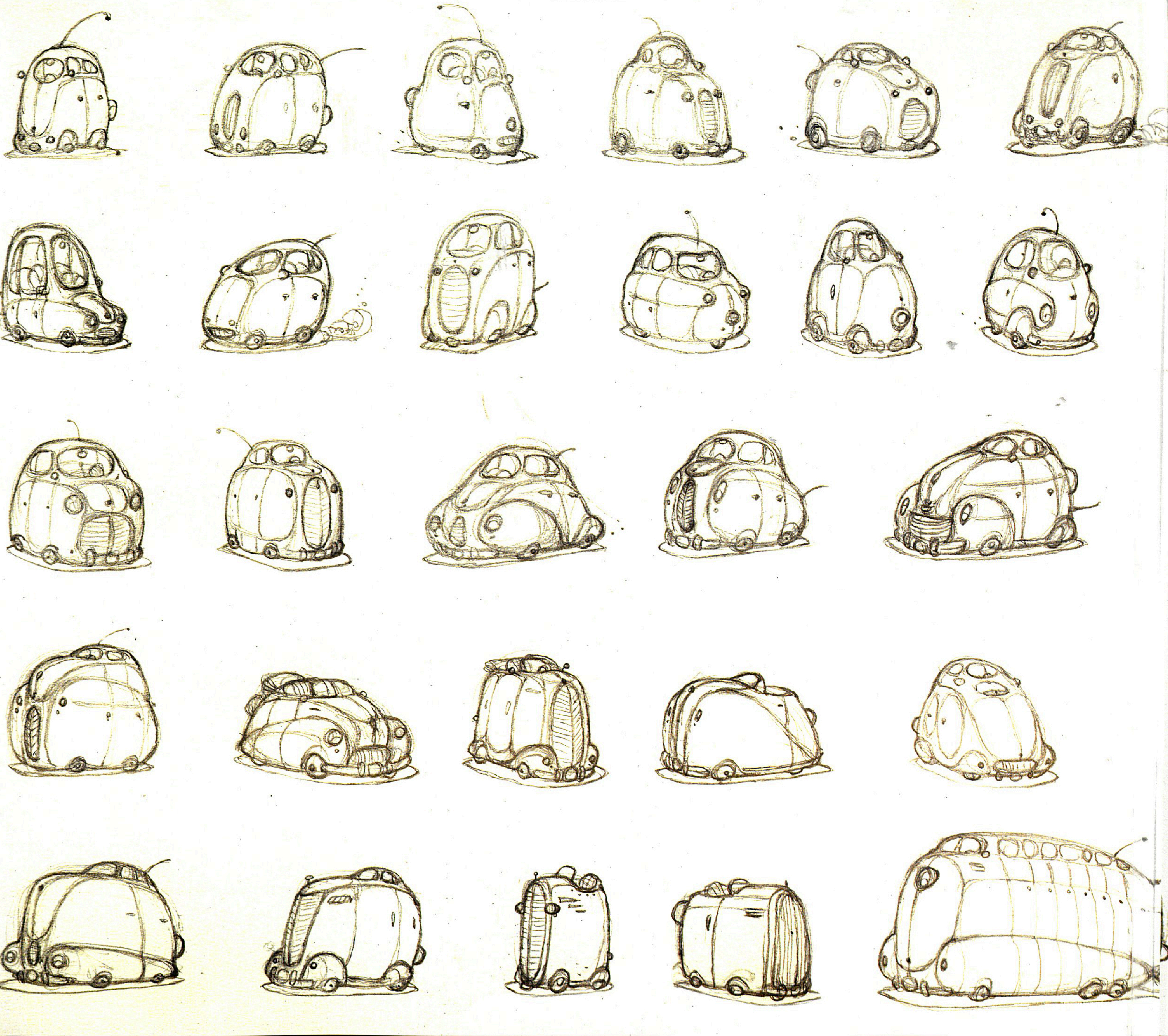


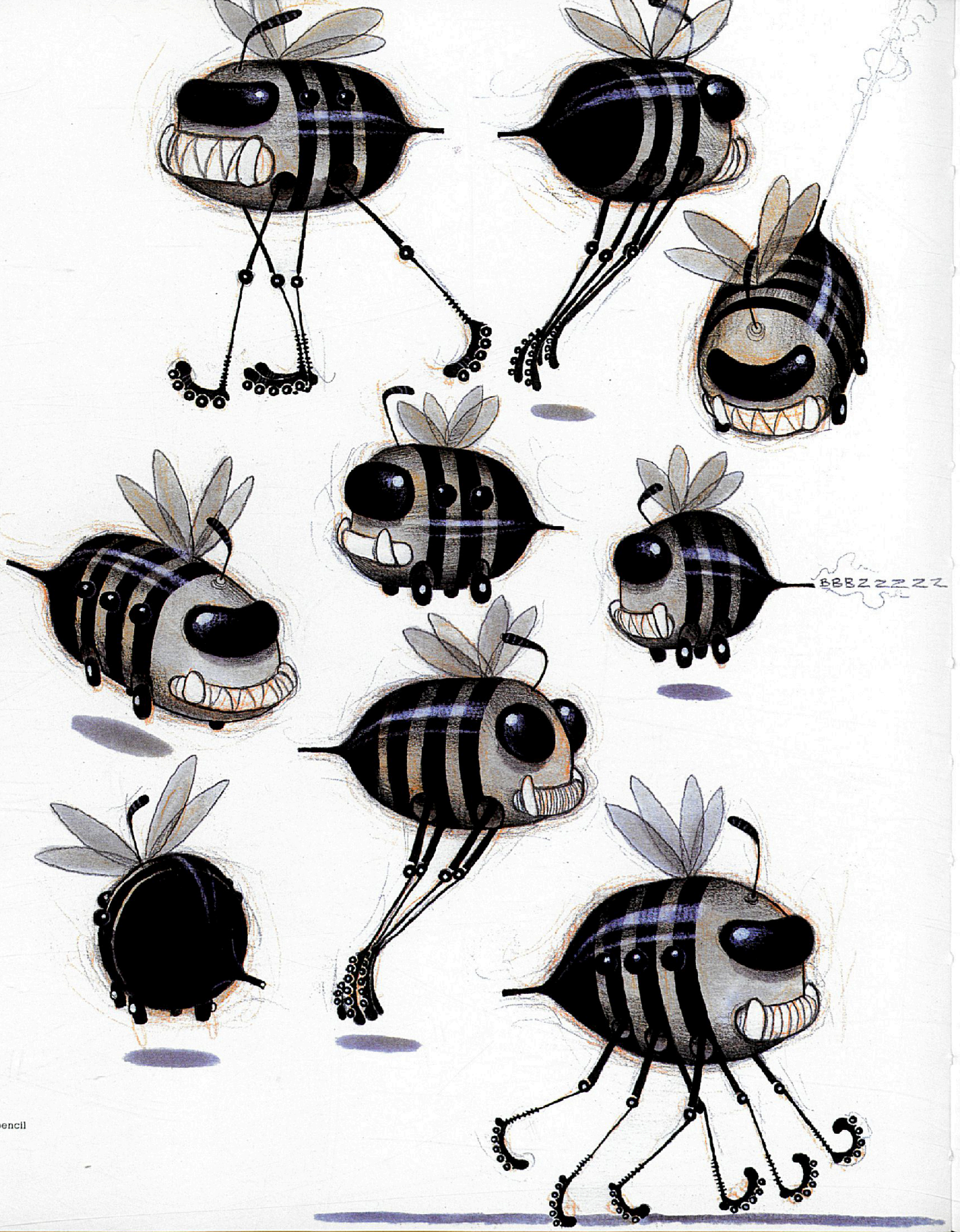
Bee car | Tianyi Han, color | digital

Bee car | Peter Maynez, Christophe Lautrette, Brett Nystul, car design; Tianyi Han, color | digital




BEE BUS

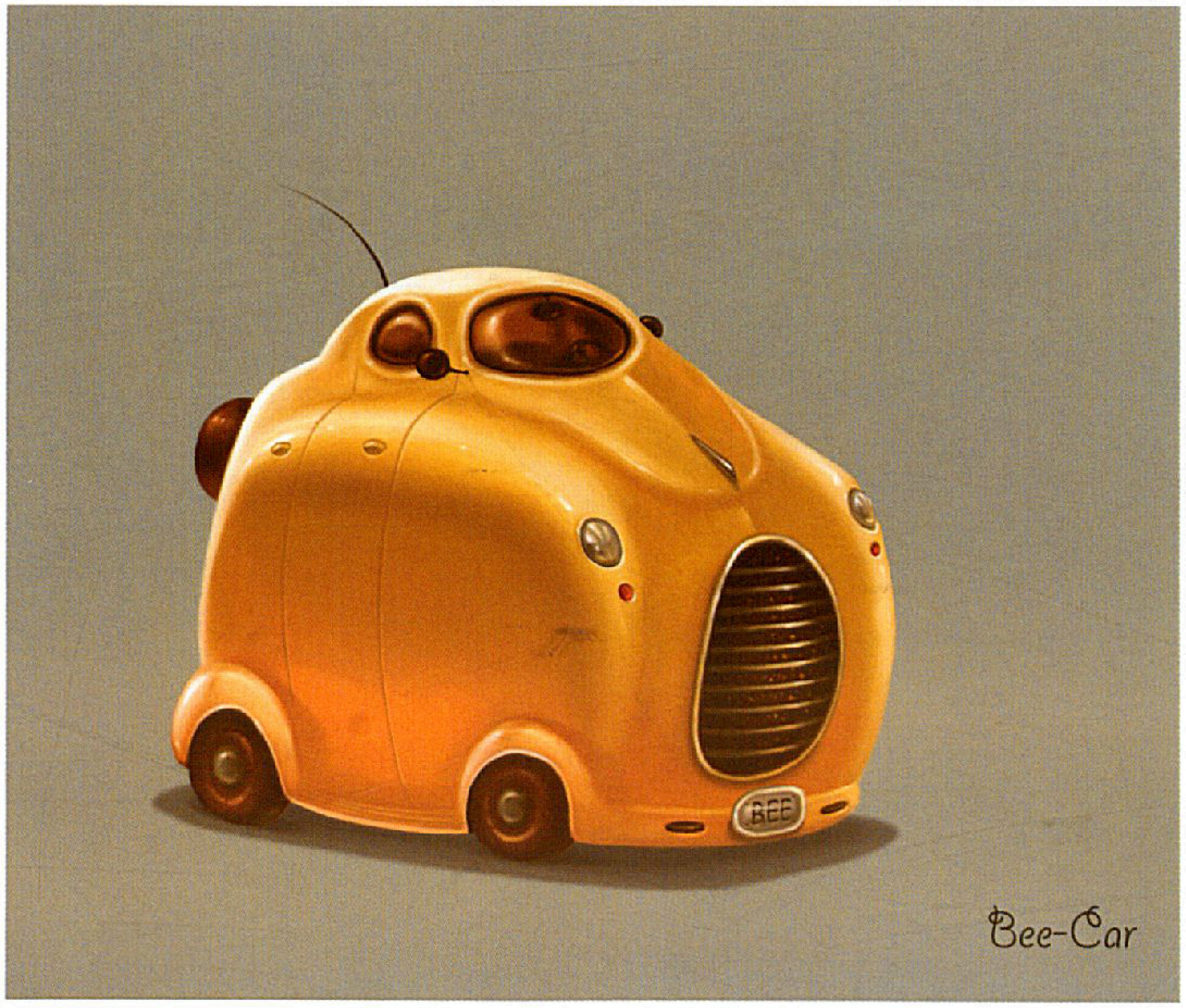




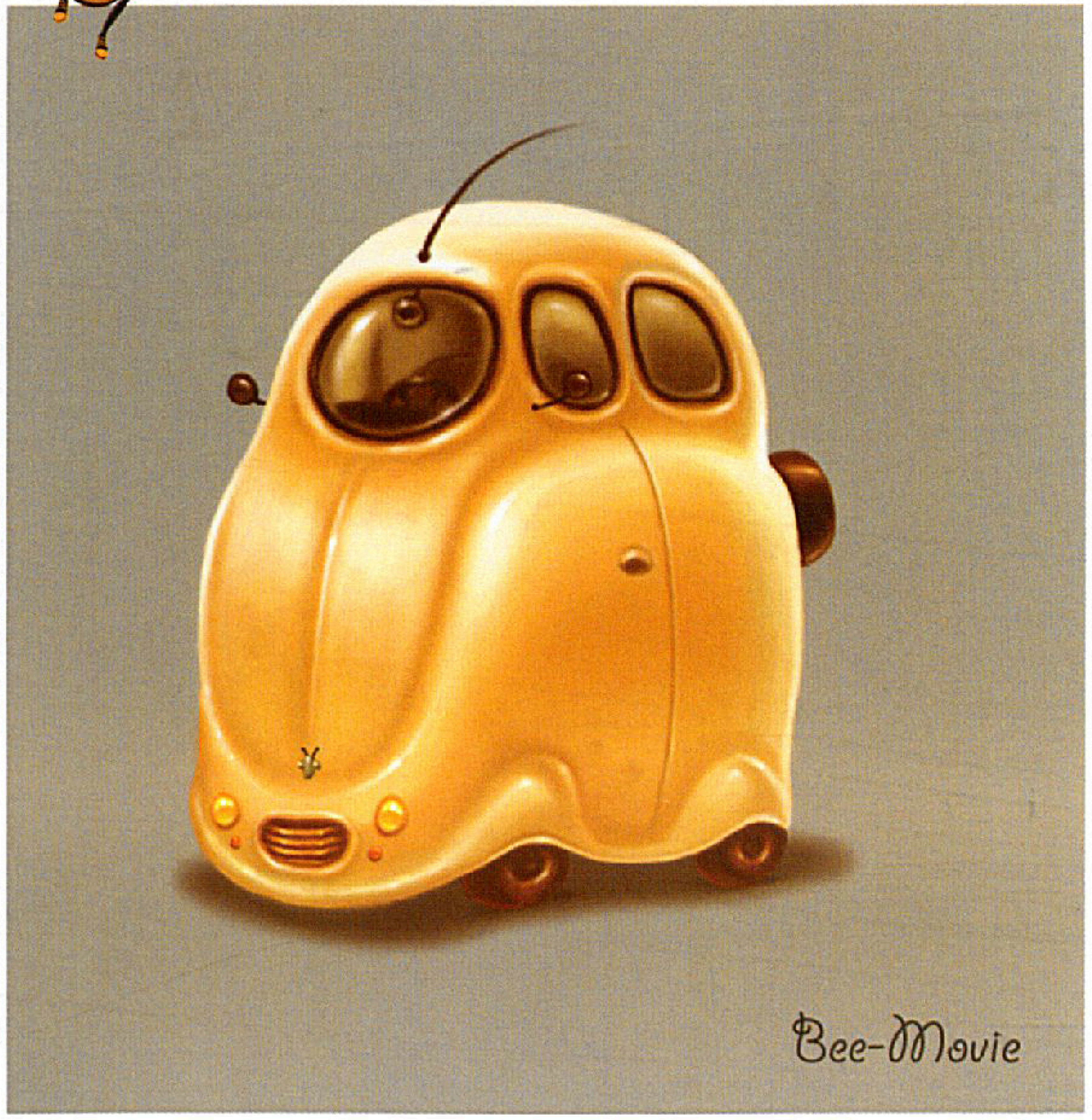
Bee vehicle roughs | Grant Larson | pencil

"It was interesting how many versions you can make. In the TV series *Seinfeld*, you would do maybe three or four versions. In this, you can do dozens of versions. In other words, you keep refining the movie. I really like that aspect of it. I like polishing small details of something. It's a lot like stand-up, really: You take something that you do and keep improving it in small increments over a long period of time."
—Jerry Seinfeld

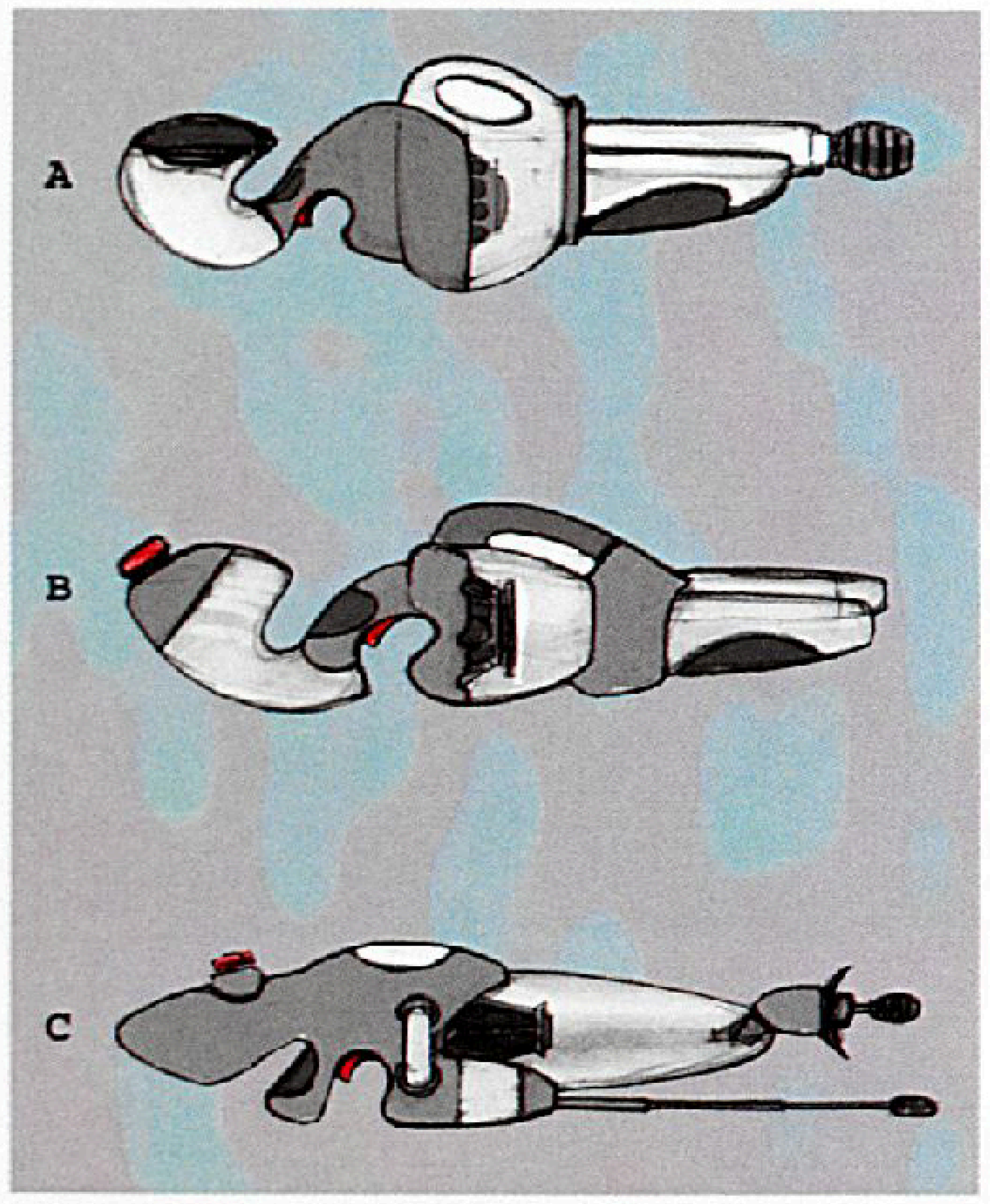
Early bee vehicle | Christophe Lautrette | digital



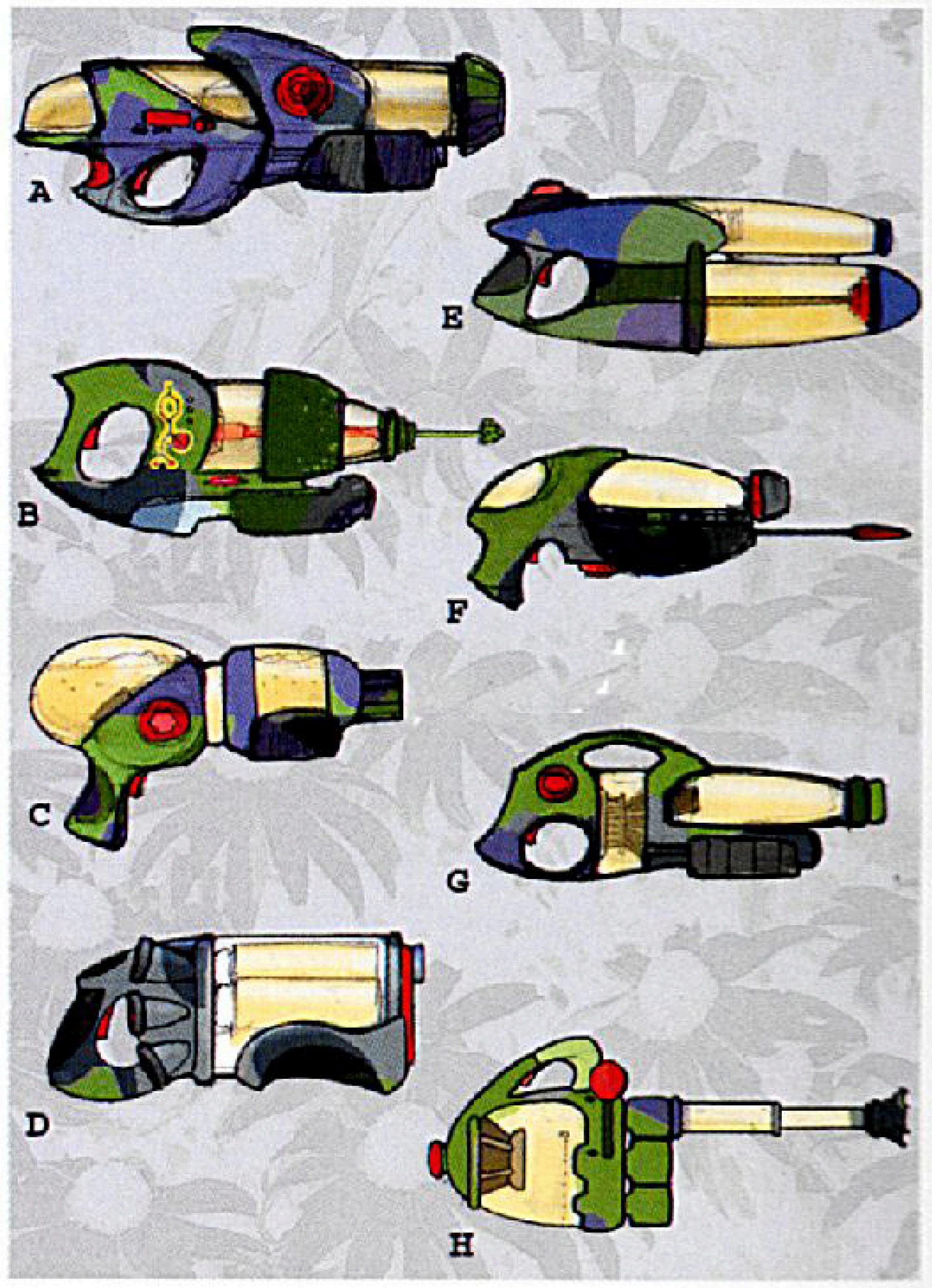
Early bee car | Christophe Lautrette | digital



Pollen-Jock Guns

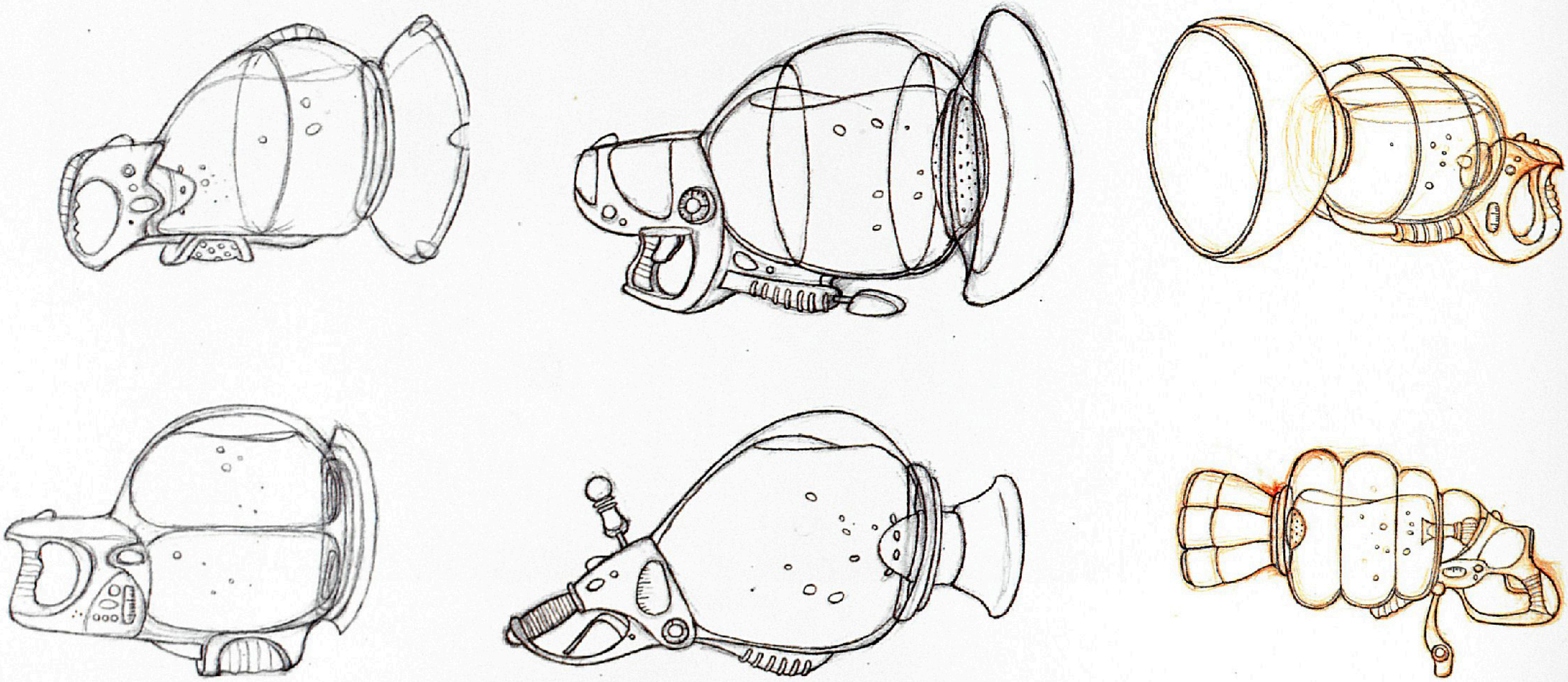


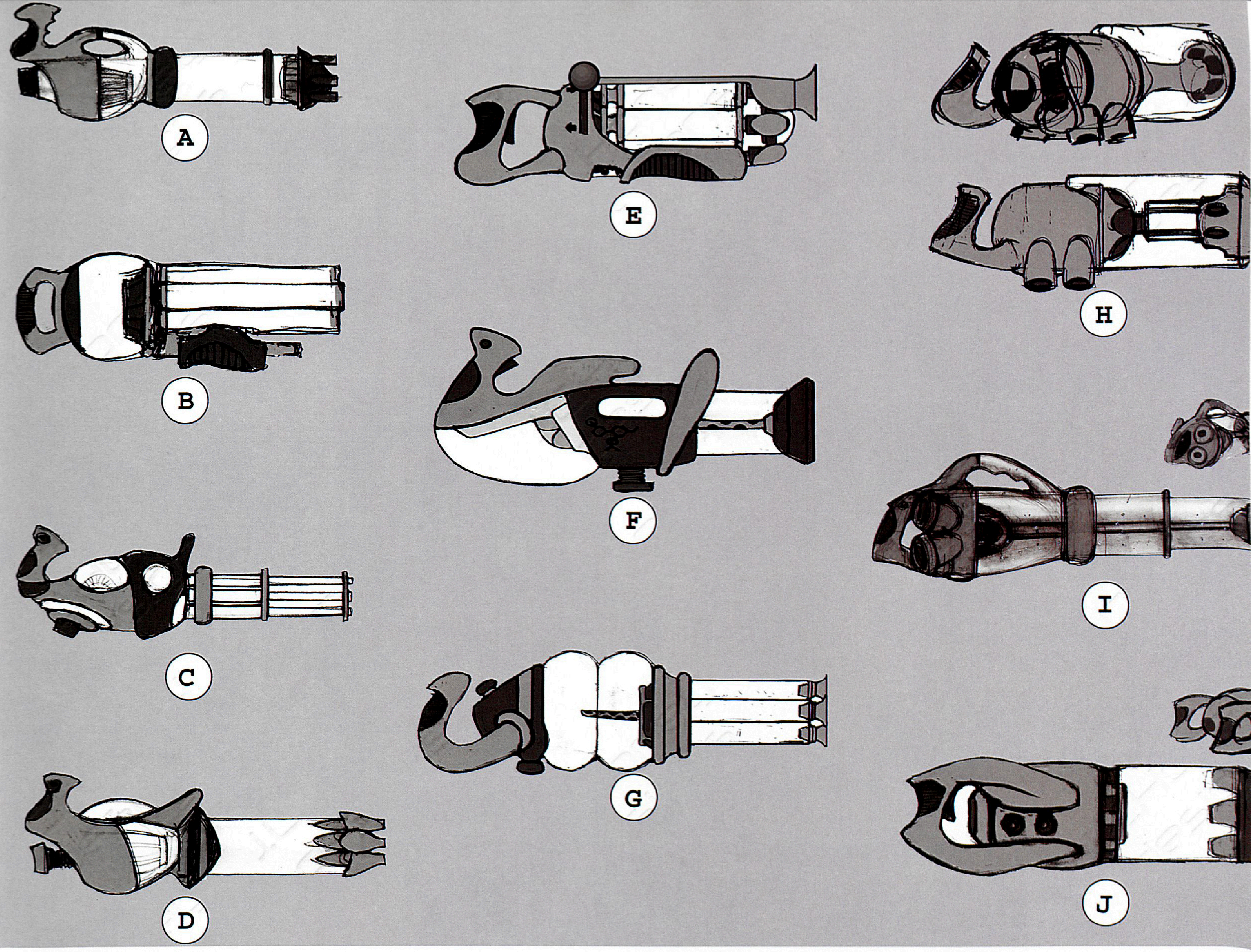
Pollen guns | Peter Maynez | pencil and Photoshop



Pollen guns | Peter Maynez | pencil and Photoshop

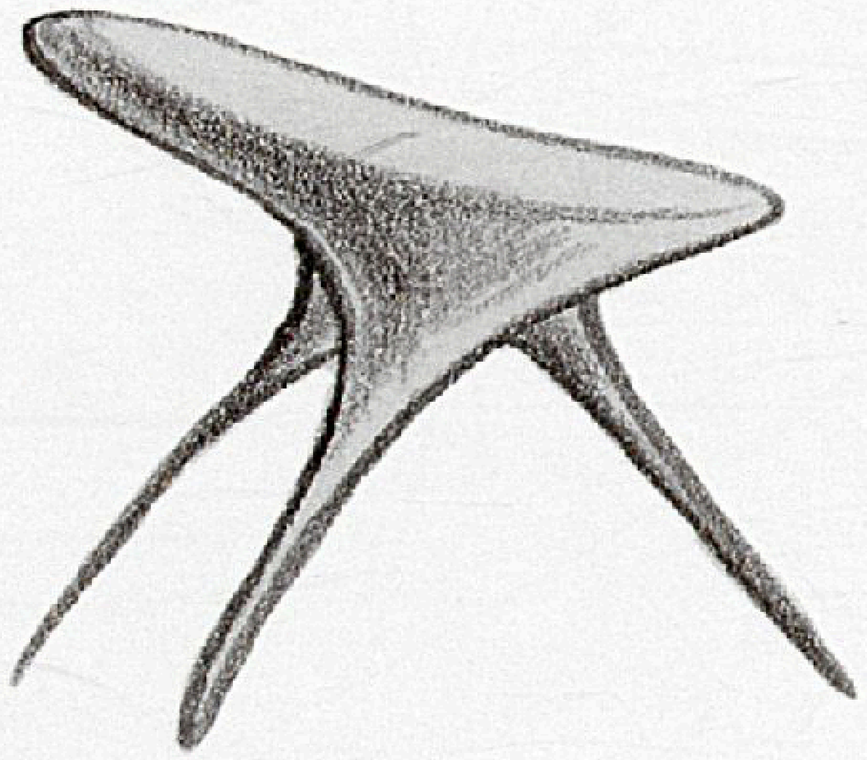
Pollen gun design | Christophe Lautrette | pencil

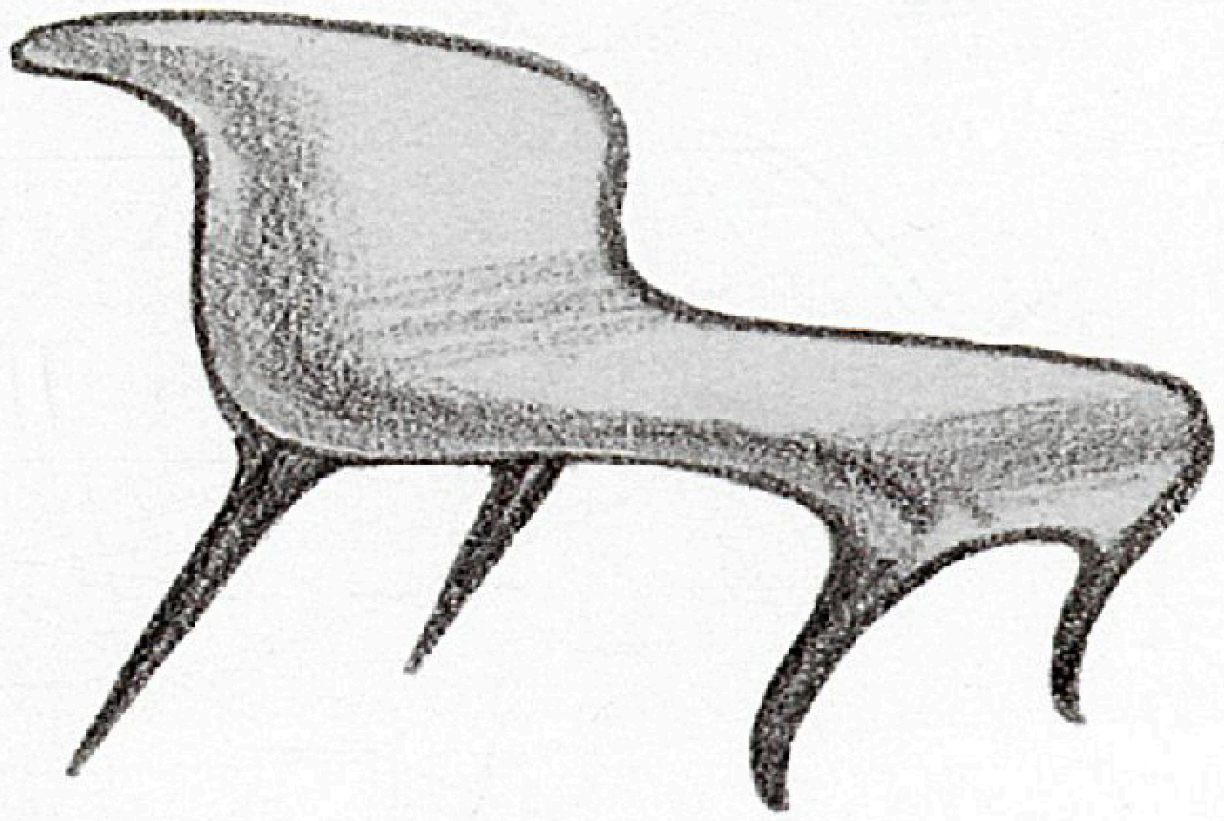




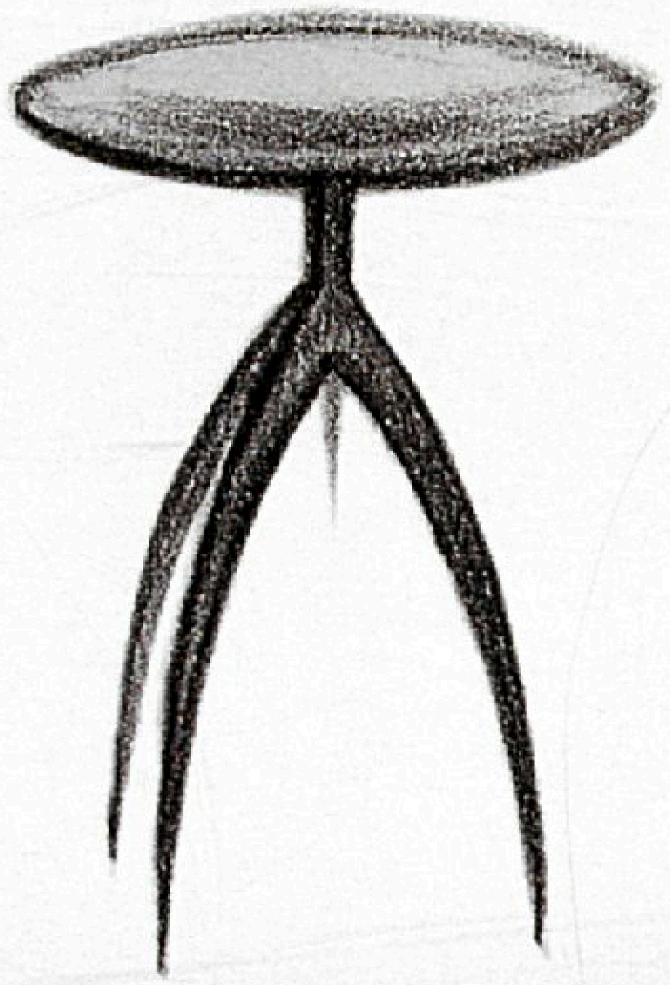
Pollen guns | Peter Maynez | pencil and Photoshop

Hive Furniture





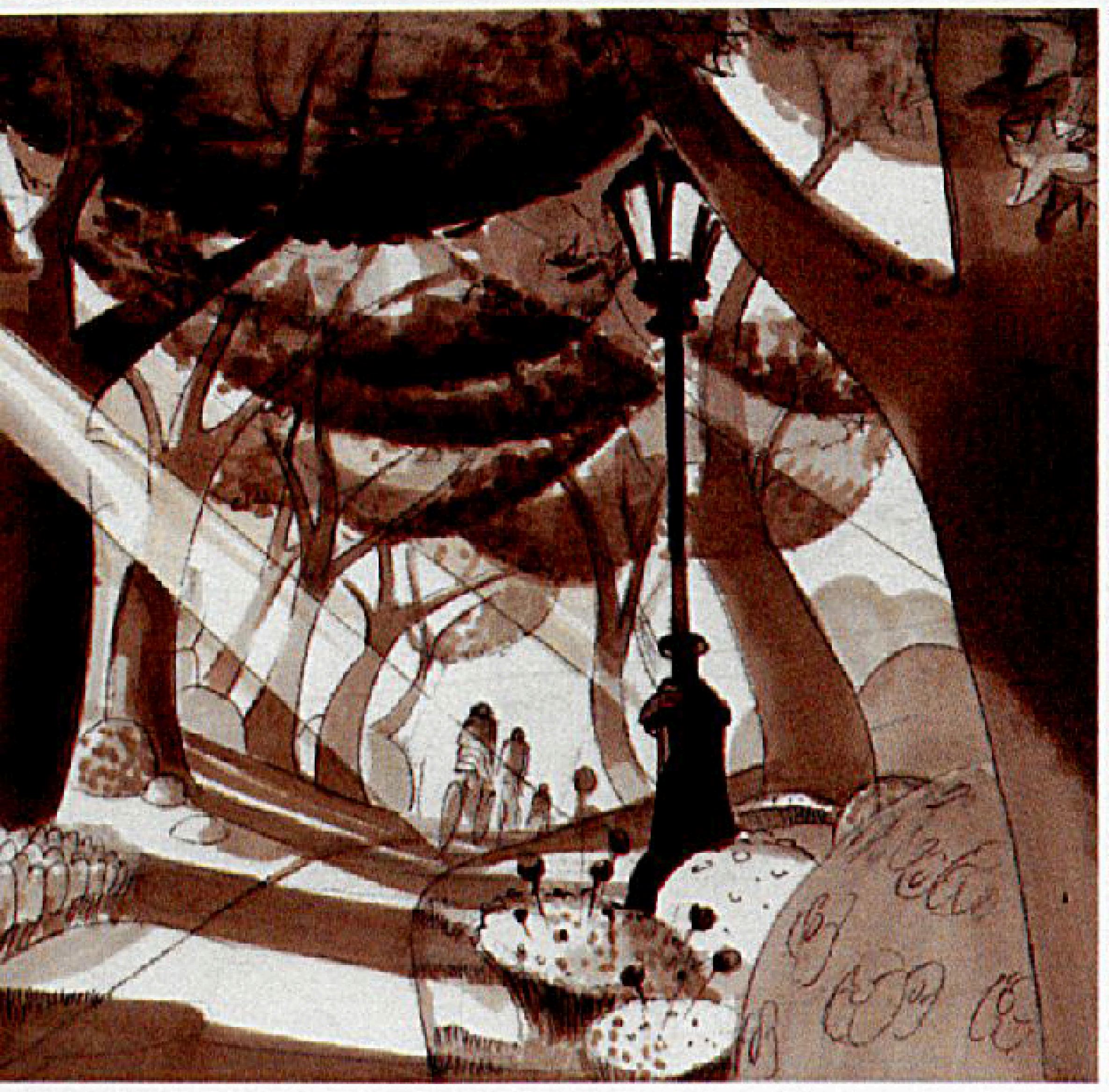
Hive furniture | Steve Pilcher | pencil



"Everything in the hive should look like something they could build themselves according to their morphology: a lot of thin and heavy. Basically, the abdomen is bulgy but the stinger is thin, and the legs and arms are thin, so that added to the bee architecture and props."
—Christophe Lautrette, art director

Central Park

(Pages 64–65) **Central Park** | Kirsten Kawamura | digital
(Below) **Trees** | Emil Mitev | pencil and marker



Bee Movie's Central Park is a lush green oasis in the middle of a city of gray steel and concrete. From Barry's point of view, it's a welcoming paradise of tall trees, colorful flowers, sparkling blue skies, and waving grass. For the artists and designers at DreamWorks, it was a challenge. For them, the opportunity to create a stylized world situated somewhere between real life and cartoon, and between the fanciful hive and the drab Manhattan streets, was a chance to show how imaginative they could be with the shapes, forms, and objects of nature.

"The goal was to have an illustrative quality in the final look; to give it a heightened reality, but not necessarily reflect perfection," says art director Christophe Lautrette. "I'm quite happy with the results. It was difficult to end up with something graphic in every direction. That's the problem we had when we built it in 3-D—that if it works in one plane, it has to work on every plane when you build it."

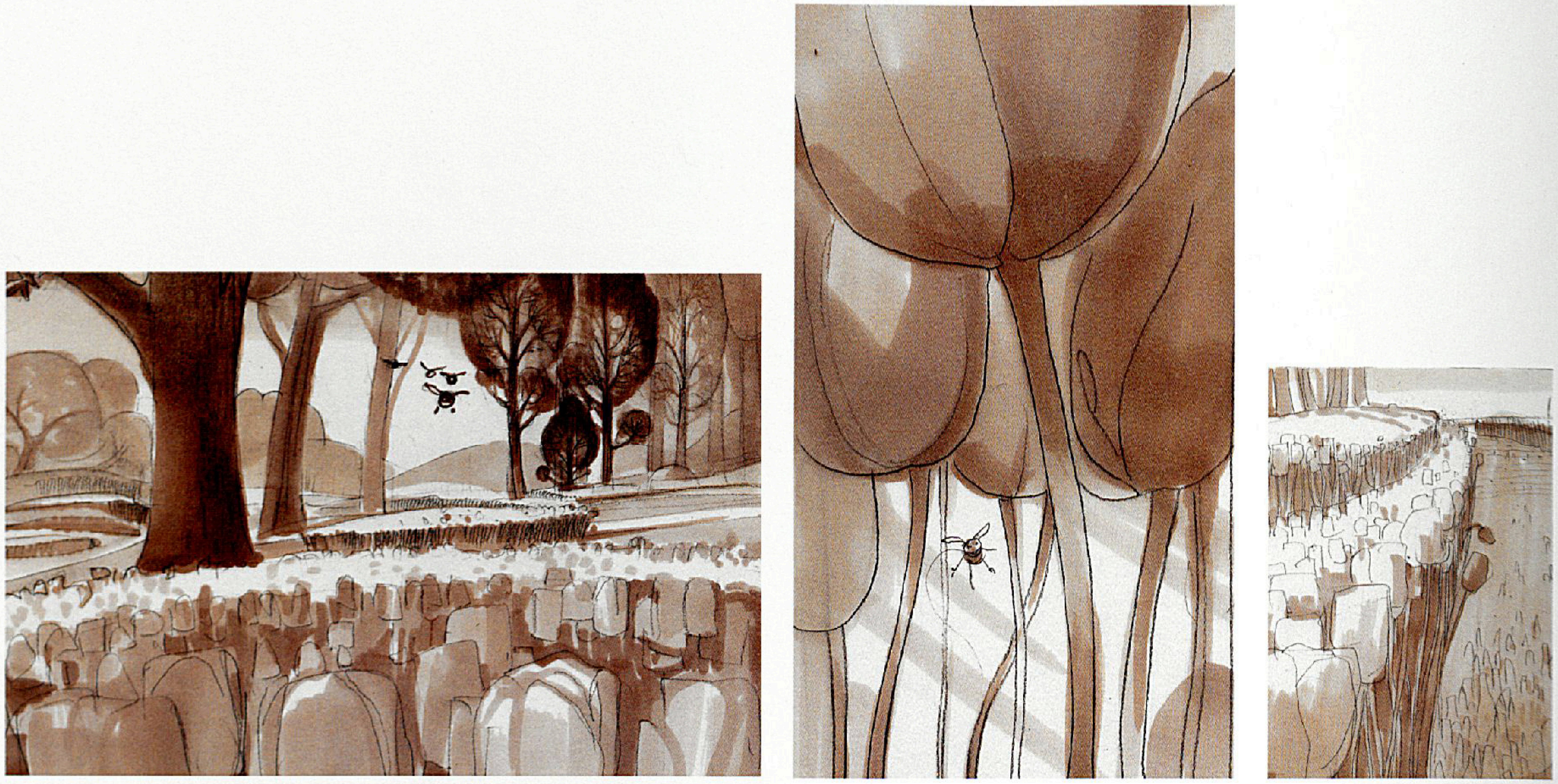
The scope of the film became a huge challenge. The art team had three worlds to deal with—the Hive, New York City, and Central Park—each one with its own subtle color scheme that set the tone of the environment and the attitude of the story. "I've always had in my mind that it's going to be pastels of some sort in the hive, high contrast outside in Central Park, and then some sort of monochromatic tones in Manhattan," said director Simon J. Smith. "It was very clear to me that is exactly how the film was going to map in terms of color—because then Vanessa's apartment would be an oasis for Barry."

Pollen Jocks in Central Park | Tianyi Han | digital

From the beginning of the film, we are with Barry in the hive and viewing the world from his point of view. When he leaves the hive for the first time, he enters a Technicolor rendition of New York's Central Park "with stuff that he's never seen before," as Cooper notes. "And the park is this rich, incredibly overwhelming world of color and excitement," not only visually exciting but action-packed, as well. Getting trapped on a car windshield or batted around on a tennis ball, Barry gets a taste of the real world that leaves him—and the viewer—dazed.

Together with Alex McDowell, art director Christophe Lautrette and head of modeling Ardie Johnson built all the trees based on fractal theory: If you have a drawing of one tree, each branch is a small version of the tree," says director Steve Hickner. "If you keep going to a smaller branch, the smaller branch is a version of the whole tree. And it works great because we have two worlds: the Barry size and the human size. Because it's fractal based, it is still going to retain the globe-shape design of the big world, no matter how small you get."

Color flower | Olivia Mole | digital



Central Park | Emil Mitev | pencil and marker

McDowell put a lot of thought into the fractal theory, an approach to stylization that makes a lot of sense aesthetically and was practical to achieve with digital graphics. "There's a perfection or geometry of nature," he says. "Our flowers are very symmetrical—there are no bent stems or petals. It struck me as interesting to use the geometry of nature to heighten the stylization. It's a perfect world. All the trees have a controlled form language; all leaves are perfectly identical, and there are no dead twigs. The bees have had a harmonious relationship with nature for millions of years, and Central Park symbolizes that." The striking flower design used in Central Park was influenced by the photography of Karl Blossfeldt, a German photographer renowned for detecting marvelous designs in the natural structures of plants. Taken almost a century ago, his black-and-white photographs depict flowers as graceful, stylized sculptures that would be the envy of any skilled architect. "It was important that there was a common form language between the bee architecture and the shapes in nature," says McDowell.

The production team not only had to create an outside world from the point of view of its insect-size protagonists, they also had to visualize the scope of the film a second time, for the human-size perspective. The trees, cars, and the characters themselves come in both standard and super-size versions, because at various times these characters are shown in different scale—doubling the work for the art team.

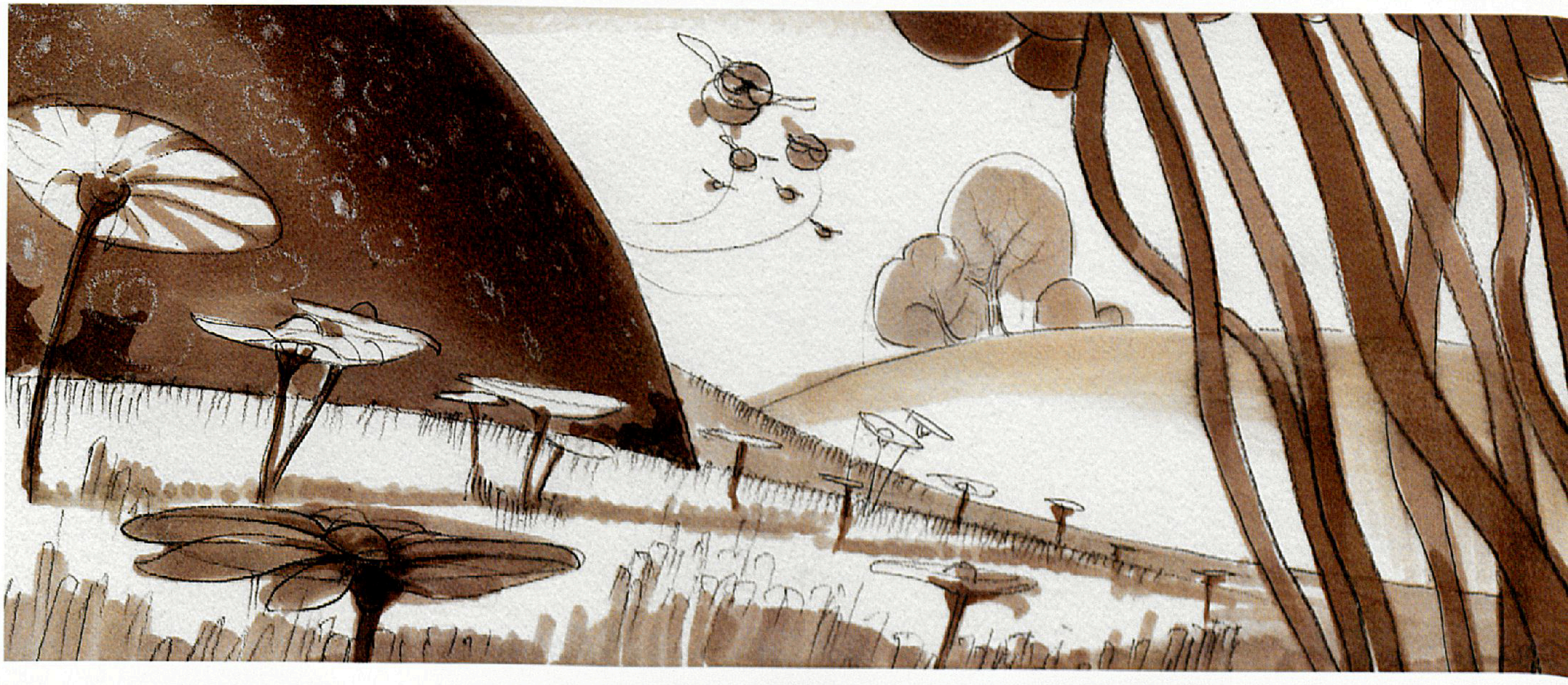
McDowell had to keep this factor in mind. "There's a scale shift that occurs," he says. "We scaled everything in the hive world in human proportions. So Barry is 6 feet tall, or a little under. Then, when he goes out, he scales to 1.125 percent of himself, so he becomes less than a half inch long."

"We discussed the challenge of scale," Cooper recalls. "Dealing with the world from a bee's point of view, you are really getting into the macroscopic level, so we looked at a lot of macrophotography, looked really close at these elements. We actually studied footage of bees getting in there, farming the nectar, and getting pollen dust on them and things like that. It was a big thing for our effects department to sort out—the pollen itself, how it breaks up and turns into a dust and sticks to the characters."

In *Bee Movie*, Central Park is the first step into a world of adventure, a first look at what lies beyond the beehive. "You need to believe our Central Park," says Lautrette. "It has to be somewhere you have been before. You have to recognize it. That is what we tried to do."

This initial outing to Central Park provides not only Barry but also the audience with a chance to see the world from a new point of view.

Central Park | Emil Mitev | pencil and marker

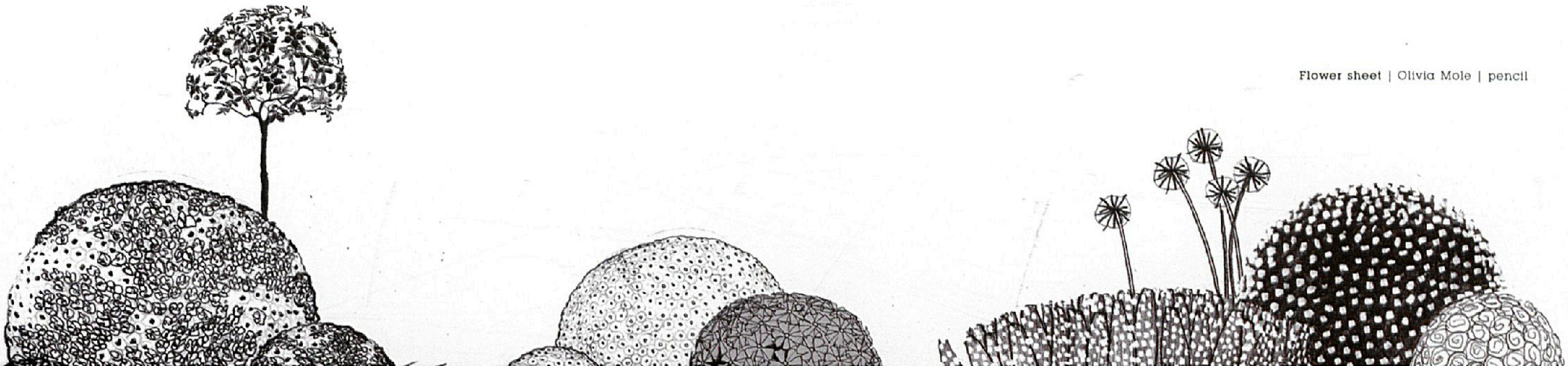


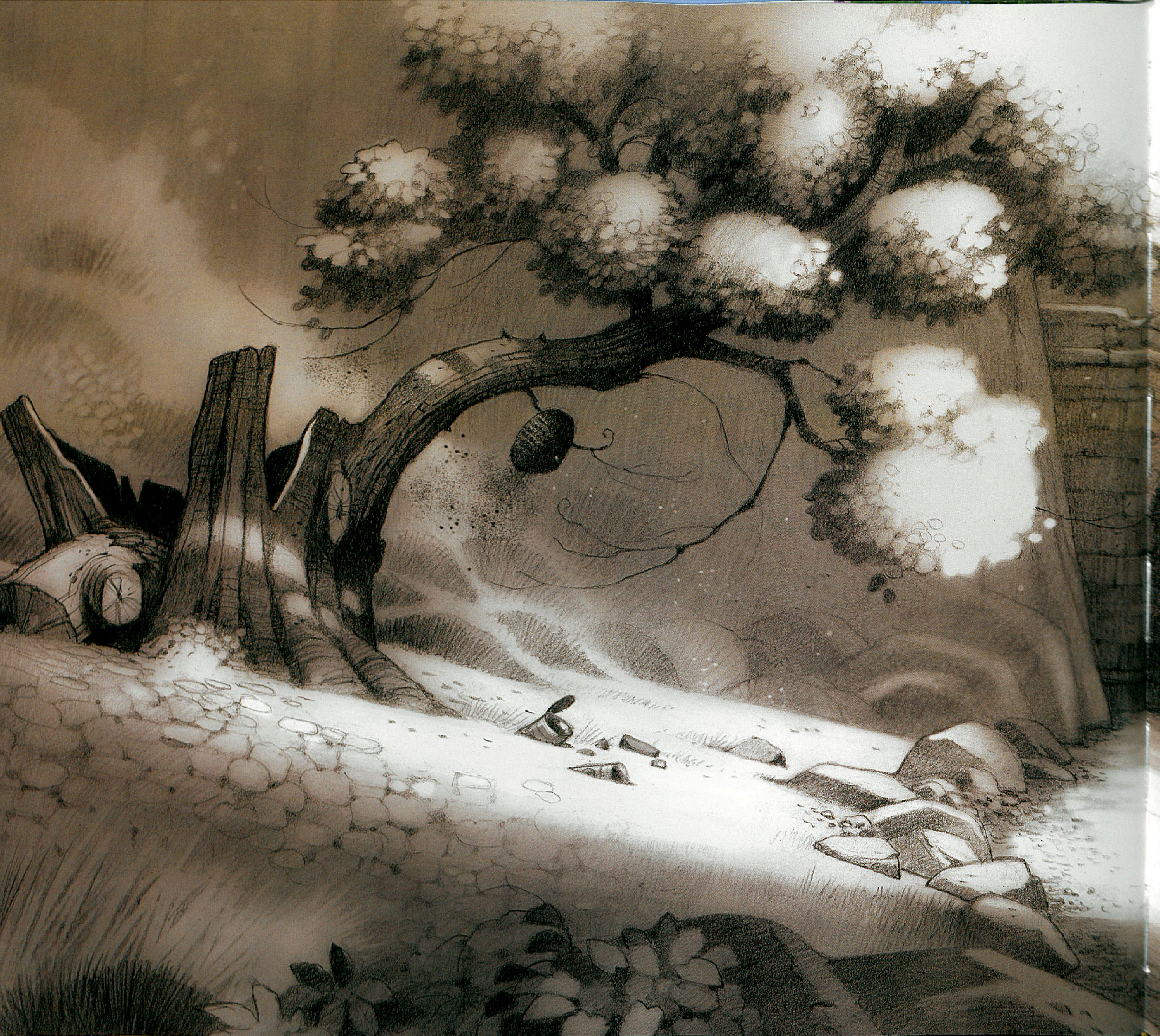
Park trees | Zhaoping Wei | pencil

Tree designs | Zhaoping Wei | pencil

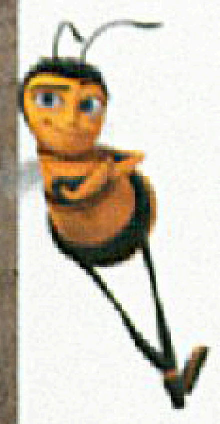
"In Central Park, the trees look pretty real. But we've tweaked the DNA. You've got these real trees growing into these beautiful round balls of leaves and flowers on beautiful swinging shapes of branches."
—Simon J. Smith, director

Flower sheet | Olivia Mole | pencil





"I think it's an incredible process to work so closely with all the artists and to have the luxury to work three years on a movie. For production design in live-action films, you have four months to pull it all together, from conception to the time of shooting, whereas here, you have time to explore and decide what the look of your movie is at a much more detailed level."
—Christina Steinberg, producer

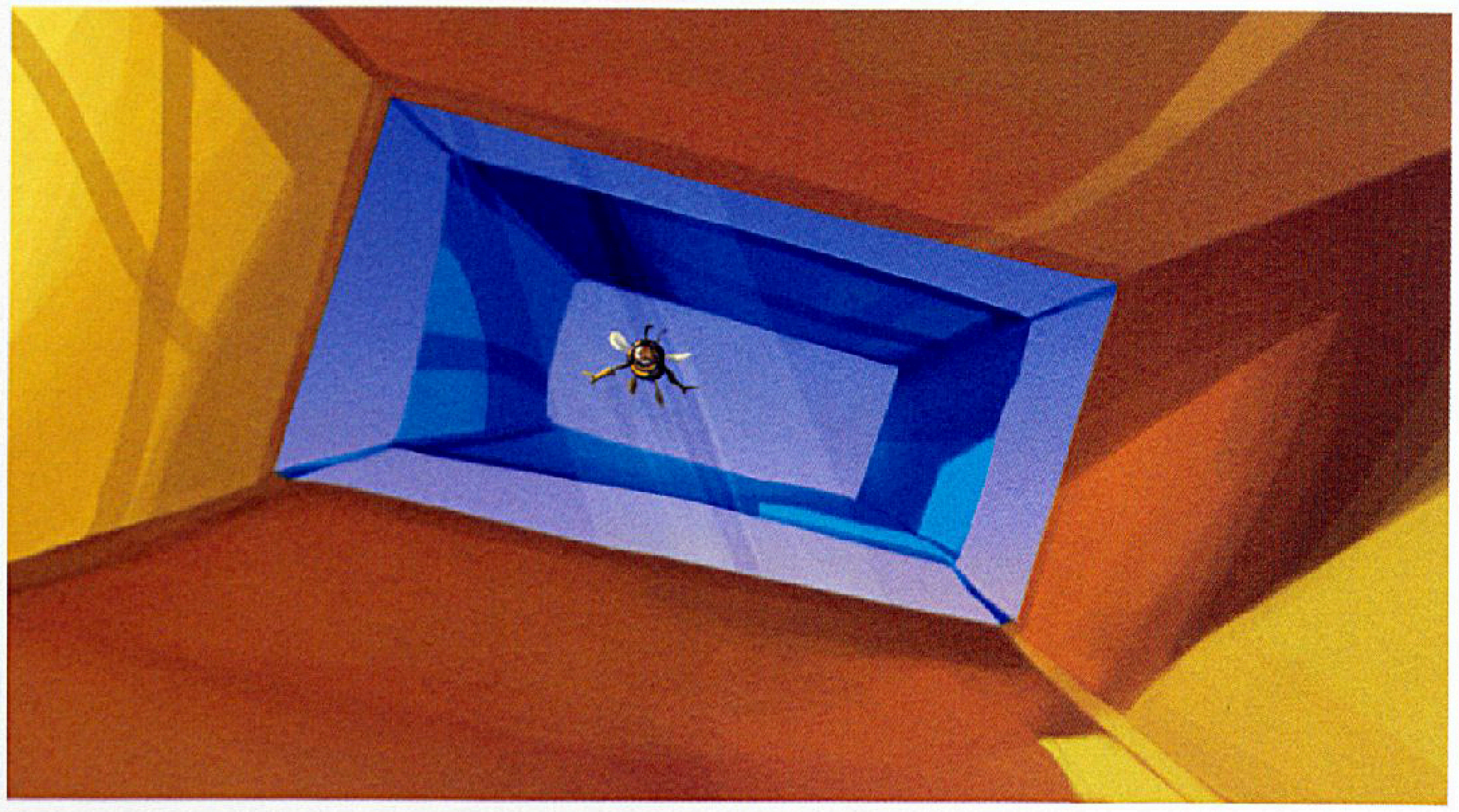


Central Park path | Christophe Lautrette | pencil and Photoshop

Central Park color exploration | Emil Mitev | digital

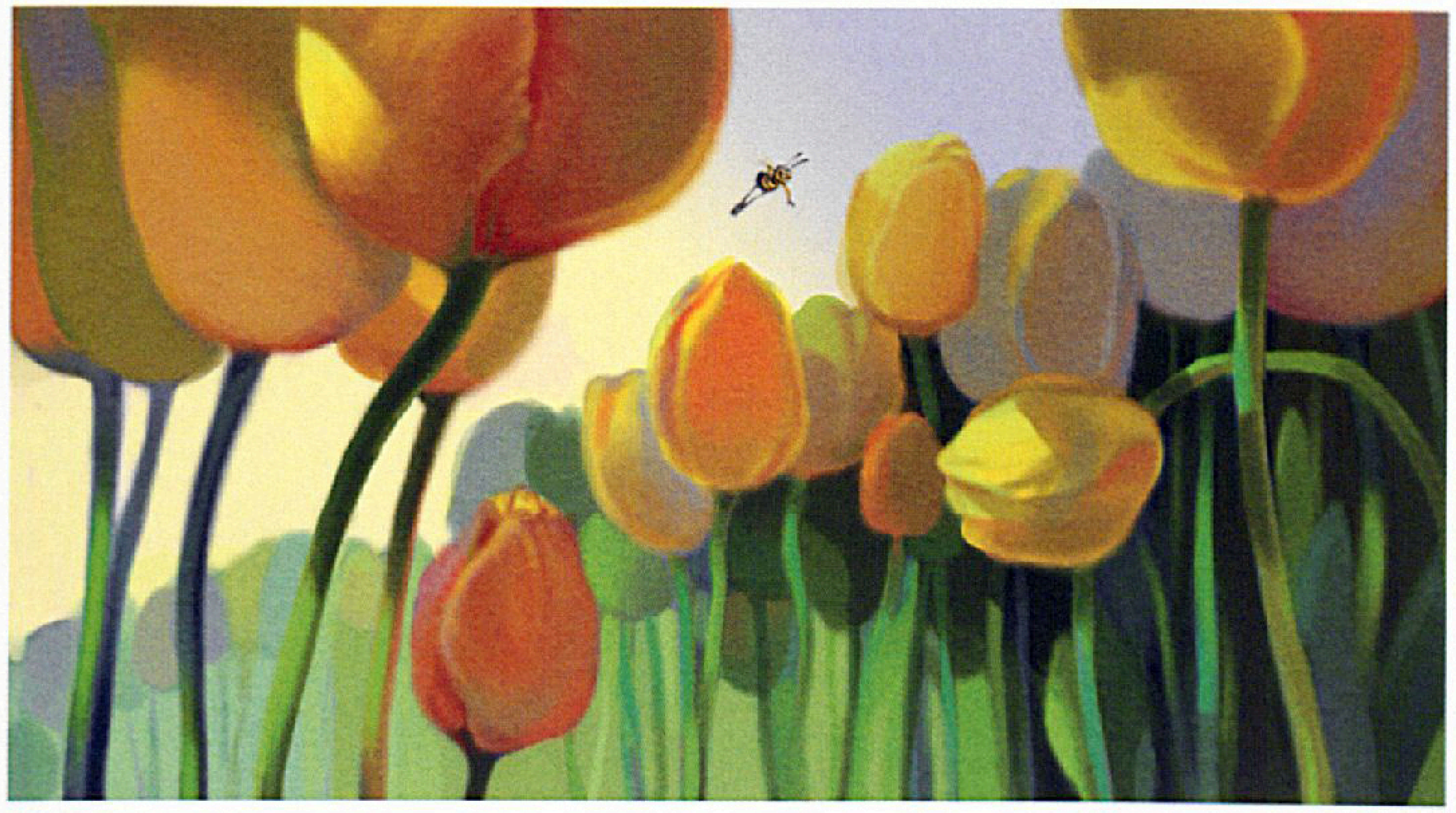
Central Park color exploration | Emil Mitev | pencil and Photoshop

Central Park color exploration | Emil Mitev | digital

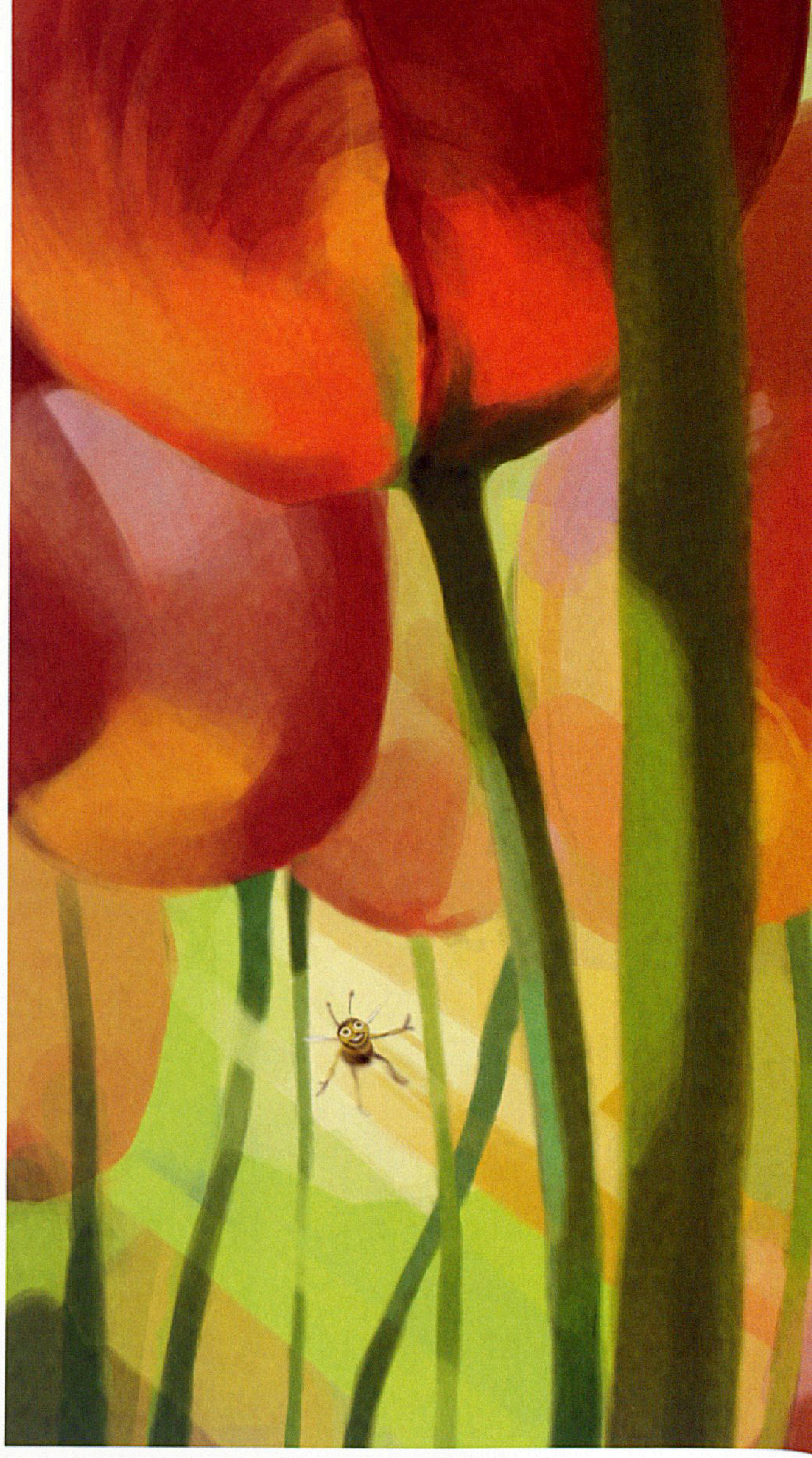


"With an environment like Central Park, we had to see it in wide vistas and extreme closeups, sometimes within a single shot. As the bees go flying through the park, we start high up in the sky with a view reaching far out over New York City. But then we follow them down as they fly into the park and among the flowers, eventually landing on a flower and harvesting the nectar from inside. Our technology team had to rewrite our entire software toolset to make this possible."

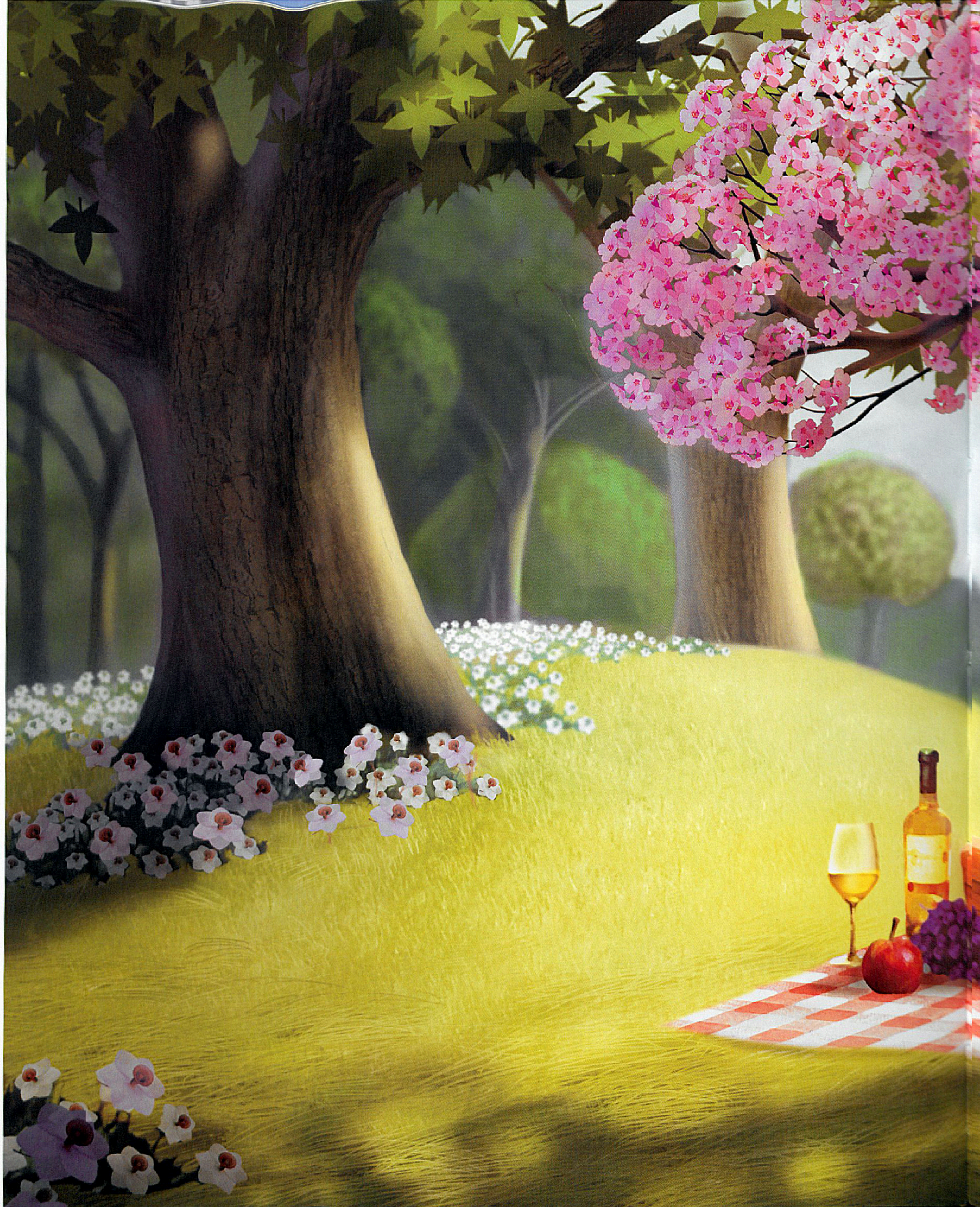
—Doug Cooper, visual-effects supervisor



Central Park color key | Emil Mitev | digital



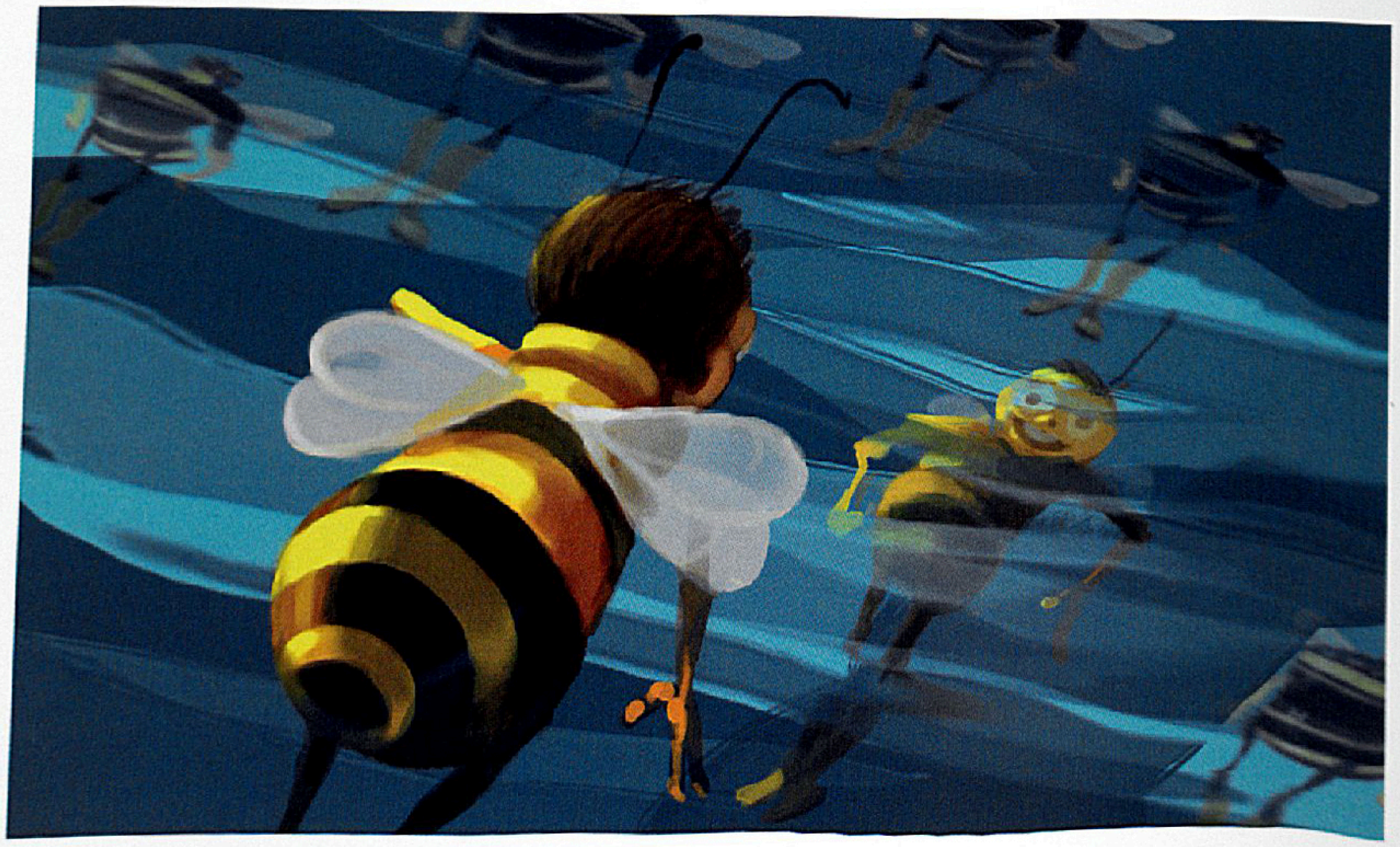
Tulips | Emil Mitev | digital



Picnic fantasy | Kirsten Kawamura | digital

Pollen Jocks color key | Emil Mitev | digital

Central Park color key | Emil Mitev | digital



"There are three distinct color palettes. The bee world has a honey-wax hue tinted with flower colors, with a yellow filter—a constrained range of color. Central Park explodes with color, in contrast. It doubles the color spectrum. The city is more monochromatic."
—Alex McDowell, production designer

Pollen Jocks over fountain | Emil Mitev | digital

Pollen Jocks in Central Park | Emil Mitev | digital

ZhaopingWei

"This painting gave us a hint of what the movie would look like in every direction. Lightwise, it's springtime. All the leaves are in bloom, fresh leaves, new flowers on the ground, fresh grass, nice light; the weather is really reflective and graphic. There's a contrast between the greenery of the park, which is really friendly for the bees, and the human world, which is anti-bee. For the human world, we have a lot of blue and gray, cold color, glass, steel—and, in contrast, Central Park is really lush and colorful."
—Christophe Lautrette, art director

Sting bar at night | Zhaoping Wei | digital

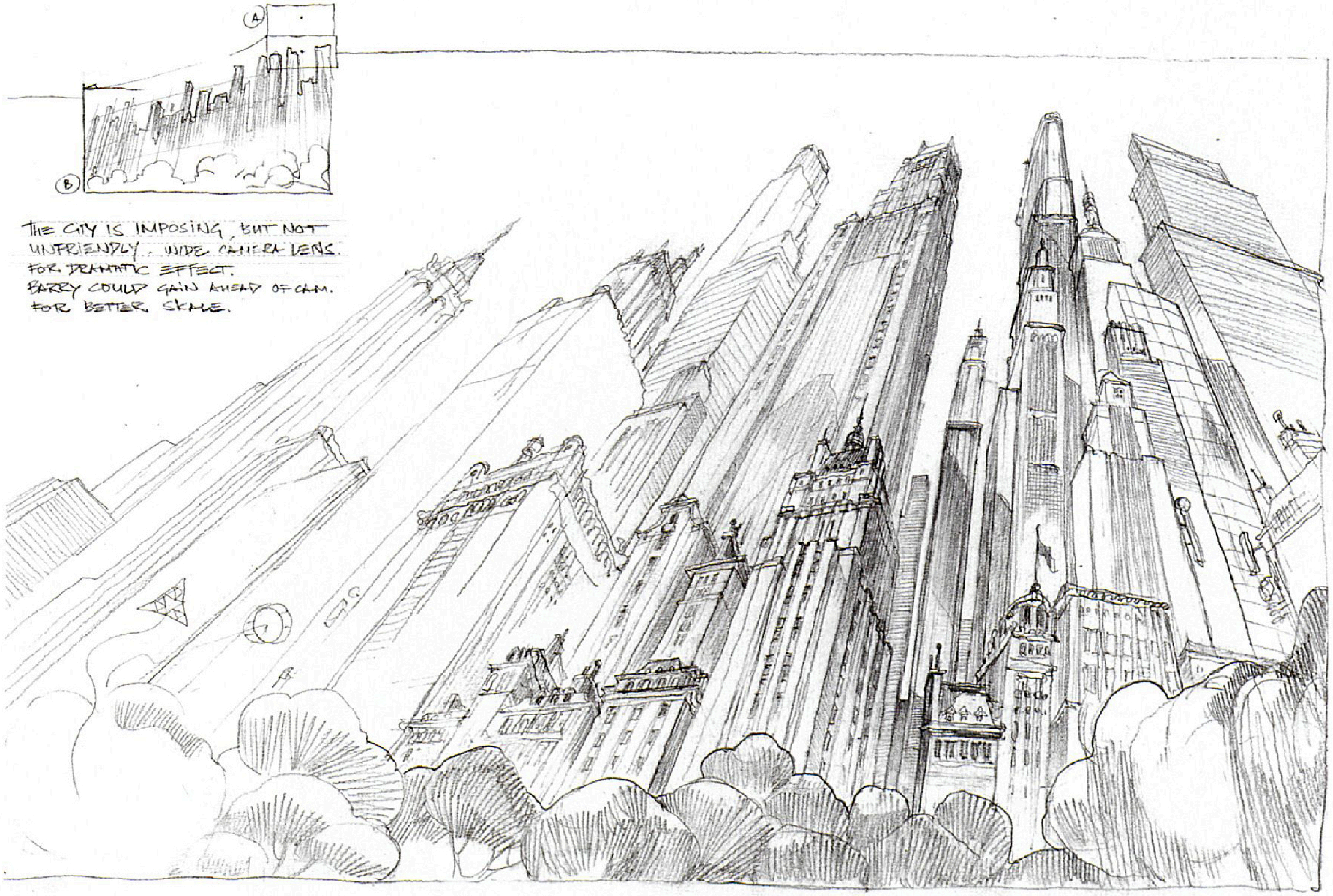
Central Park | Zhaoping Wei | digital

Manhattan

Skyline | Seth Engstrom | digital
(Pages 82–83) **New York buildings** | Kirsten Kawamura | digital

The imposing towers of steel, glass, and concrete that define New York City can seem daunting to first-time visitors. Just imagine what Manhattan would be like for a half-inch-long bee with no prior experience of the world beyond his hive. Presenting this vision was a formidable task for the film's production team. Production designer Alex McDowell, art director Christophe Lautrette, and the visual development team needed to produce a stylized Manhattan that would still be recognizable to human audiences while simultaneously designing a warped, gargantuan version that threatens to overwhelm Barry at every turn.

"Our New York is quite a stylized, exaggerated version of New York," Cooper says. "So even though it's a little bit more grounded in reality than New Hive City, we're taking the New York that people know and love, and we're distorting and exaggerating it. Buildings are two or three times taller than they would be in New York, because from a bee's point of view it is larger, massively and mentally. We get to have a lot of fun with that, cheating things and exaggerating them and distorting the perspective as it's seen from the bee's point of view."



New York City | Emil Mitev | pencil

Apart from issues of size and scale, Manhattan needed to be clearly differentiated from the other environments in the film—those of the hive and Central Park. The inventive use of color played a large part in accomplishing this task. "Manhattan is quite muted," according to McDowell. "In contrast to the other two worlds, it appears monochromatic: It has very muted reds and blues, cool grays and greens. It's the anti-bee world of concrete, glass, and stone—things that the bees can't relate to."

Cooper recalls the initial planning of Manhattan's ambience, and the search for a different feel. "You can see when Barry gets into New York that the colors are much more unsaturated and subdued. It's darker, and everything is tall and reaches out of his sight." Director Steve Hickner agrees: "That's why we eventually came up with a diametrically opposed language of steel and glass and sharp and tall—everything 'un-bee.'"

"An earlier thought was that somehow the humans had subliminally picked up the bees' design from inside the hive. We were pushing for more anthropomorphic characters, more Manhattanesque types of buildings."
—Simon J. Smith, director

"Things are much sharper in our New York," Cooper adds. "Everything is hard-edged and angular, because that's just the antithesis of the bee world. The bees come from a world of soft, round, chubby shapes, and the colors are warm, inviting, and cozy. In our New York, the colors are cool, and the edges are hard."

Some of the bees' unfamiliarity with New York's monolithic architecture made for moments of comedy. "For example, there's no glass in the bee world, and there's that gag when Barry bangs into the window," McDowell notes. "The bees live in a perfect society, so their windows are doors," he says. "There is no crime, no weather, and nothing they need to be protected from." Cooper found the gag equally amusing. "Glass is really confounding to a bee, like this clear thing that you can't possibly see, but you run right into it and it doesn't give way."

Not all of Manhattan is stark and cold; McDowell's vision for Vanessa's neighborhood and her apartment evidences a multifaceted approach to portraying the Big Apple. "I try to establish a set of rules for the world," he says. "For example, this world is not dirty and not gritty. It's a little innocent, more like the Manhattan of forty years ago. Vanessa lives on the Upper West Side, in an area that would be completely beyond her pocketbook today, on 67th. The 1980s and 1990s were my reference in terms of the reality, so we looked at stores, neighborhoods, and intersections on the West Side. Thirty years ago, that's more the price range that she could afford." To get the feel of the city right, McDowell flew to New York to scout the streets and apartment interiors of the Upper West Side, as well as Central Park. "By starting from reality and then stylizing, we added detail that brings the city to life," he says.

In creating a stylized Manhattan, the production crew also used some nondescript architectural designs in order to flesh out the city. "We have what we call the hero buildings," he says, referring to production-crew slang for structures where Barry, Vanessa, and other lead characters live, "and then a lot of these others are generic buildings. They get reused frequently, but they are all inspired by the architectural style of New York."

Whether depicting the majesty of New York's most famous landmarks, rounding out scenes with filler buildings, or creating panes of glass for unwary bees to smack into, the production crew greatly enjoyed creating their simulacrum of Manhattan. As McDowell puts it, "The fun for me in animation is that you aren't bound by reality. We've pushed everything in New York vertically, controlled the color palette, and simplified everything. Although there is a human world, it's not a real world—it's stylized in every way."

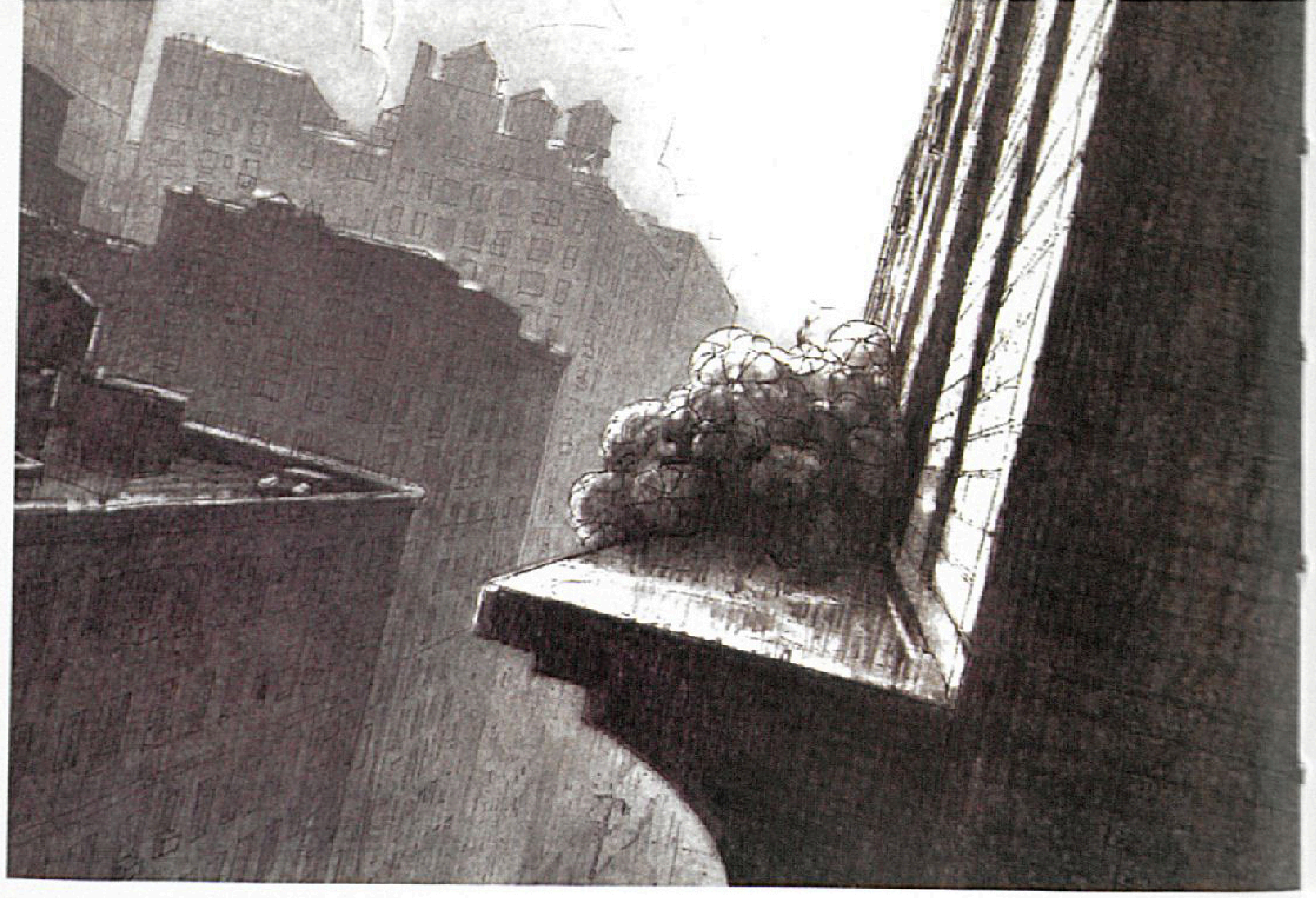
New Hive City | Zhaoping Wei | digital

Central Manhattan | Kirsten Kawamura, Christophe Lautrette, Seth Engstrom | digital

"I think this piece really helped everybody understand the difference between Manhattan and Central Park, that Manhattan was this cold, scary kind of place. Central Park was Barry's oasis, a utopia, part of the human world that reflected the bee world."
—Carrie Wilksen, visual-development production supervisor

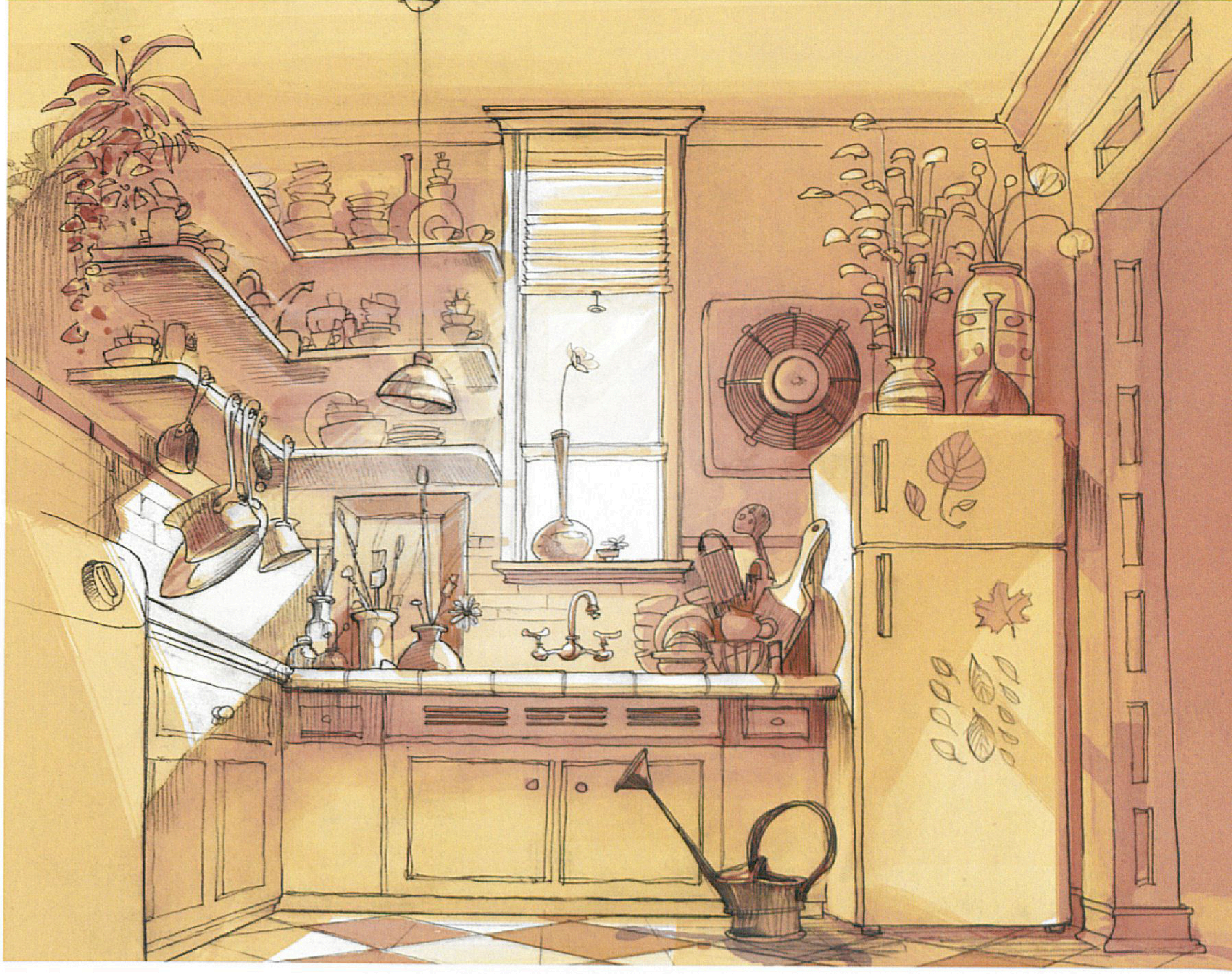
Vanessa's Apartment

"A tonal is usually for the value, white and black, and it helps give a sense of depth. When it is done, we show it to the directors. The value is already respected before we start working on the color palette."
—Christophe Lautrette, art director



Vanessa's window | Zhaoping Wei | pencil tonal

Vanessa's rooftop | Tianyi Han | digital



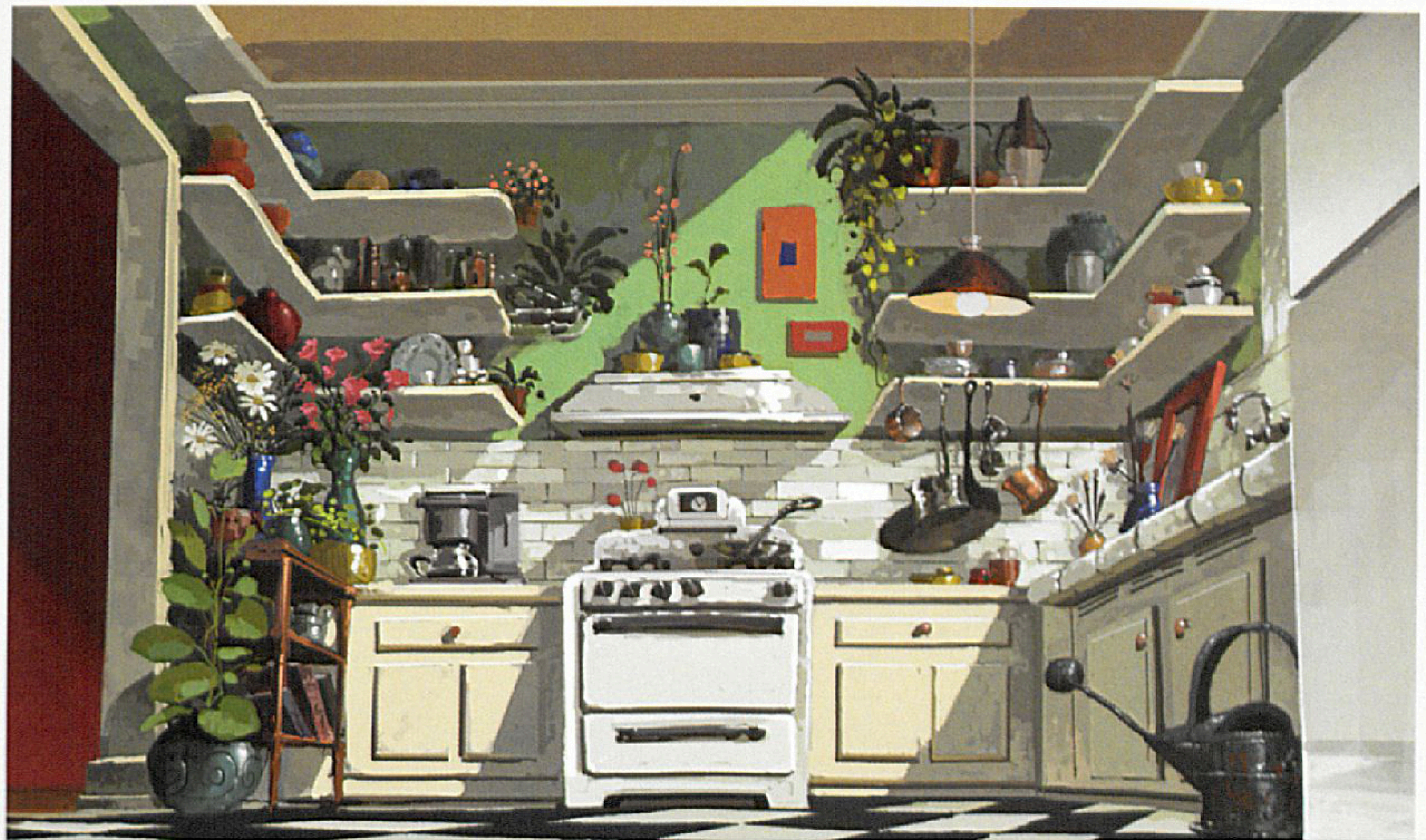
Vanessa's kitchen | Emil Mitev | pencil and Photoshop

Rooftop coffee | Tianyi Han | digital

Vanessa's window | Emil Mitev | digital

Vanessa's living room after storm | Rich Daskas | digital

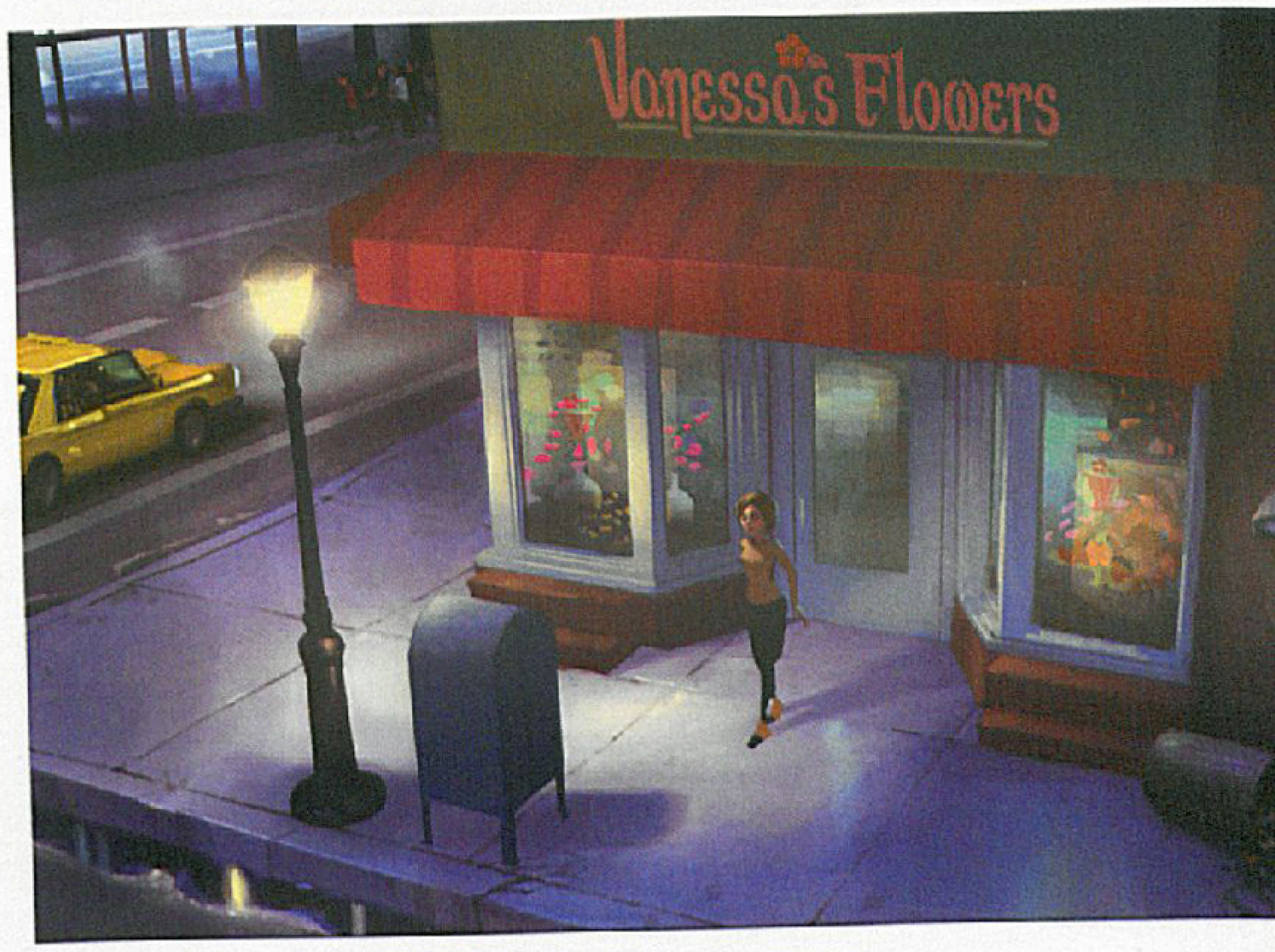
Vanessa's kitchen | Rich Daskas | digital



"We tried to find the right balance of colors and shapes so it didn't feel too retro, but it felt like a real, livable Manhattan kitchen without being too realistic in terms of texture and color."
—Simon J. Smith, director

Vanessa's Flowers

Vanessa's Flower Shop



Flower shop night | Ruben Hickman, color script | digital

Flower shop day | Ruben Hickman | digital

Town and Country

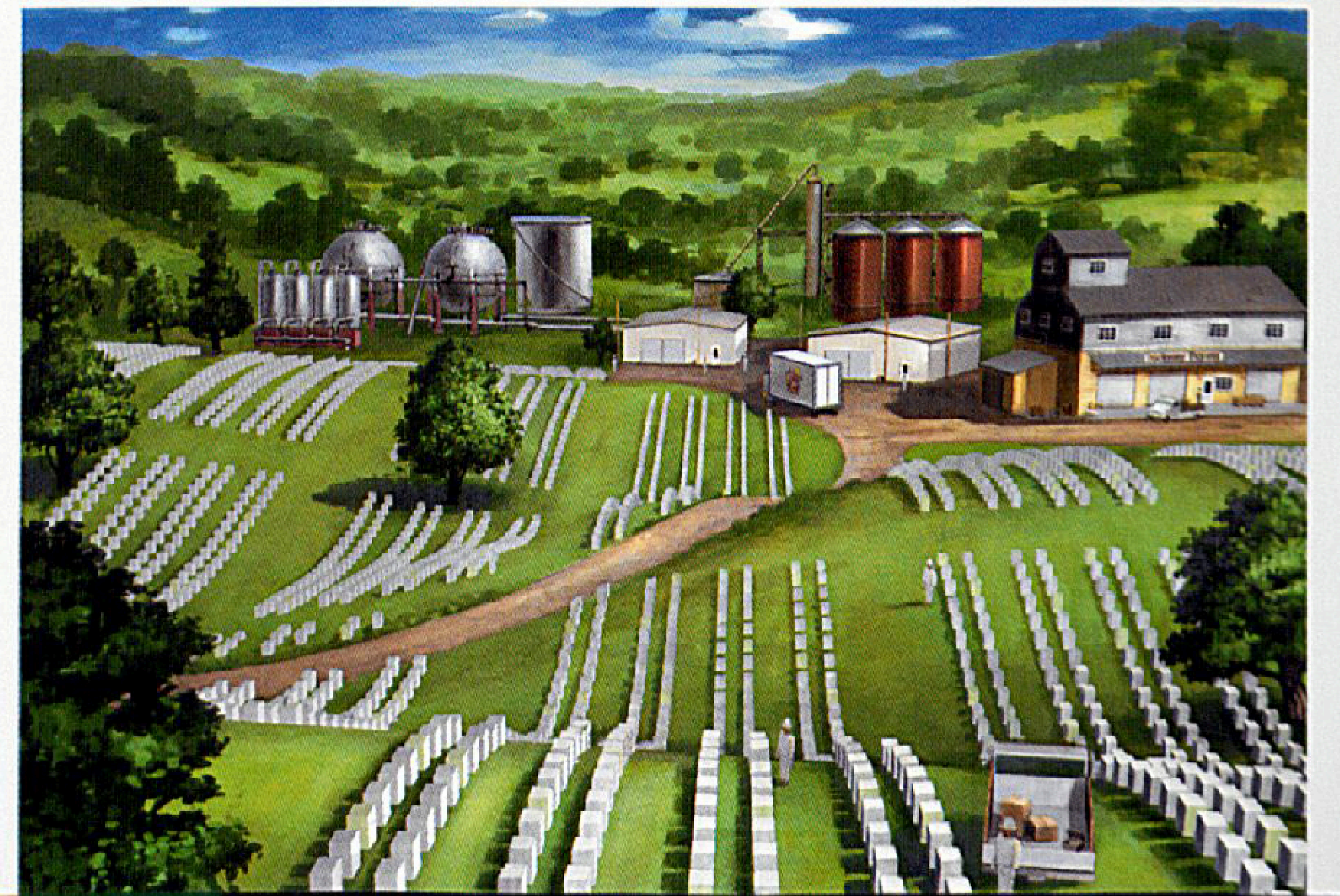
"This was the first approved color key for the happy side of the city. The city is really not inviting for the bees, but when Barry gets to know Vanessa, Manhattan is not an enemy anymore. They go shopping, it's a happy day, and they both start sharing ideas about the world. We lifted the color."
—Christophe Lautrette, art director

Vanessa's block | Ruben Hickman | digital

"This is where Barry first discovers that bees are being kept in the apiary. They're based on condos like townhouse kind of living. He finds his Aunt Fran and Uncle Howard living there."
—Carrie Wilksen, visual-development production supervisor

Apiary apartment | Kirsten Kawamura | digital

Honey farm | Tianyi Han | digital



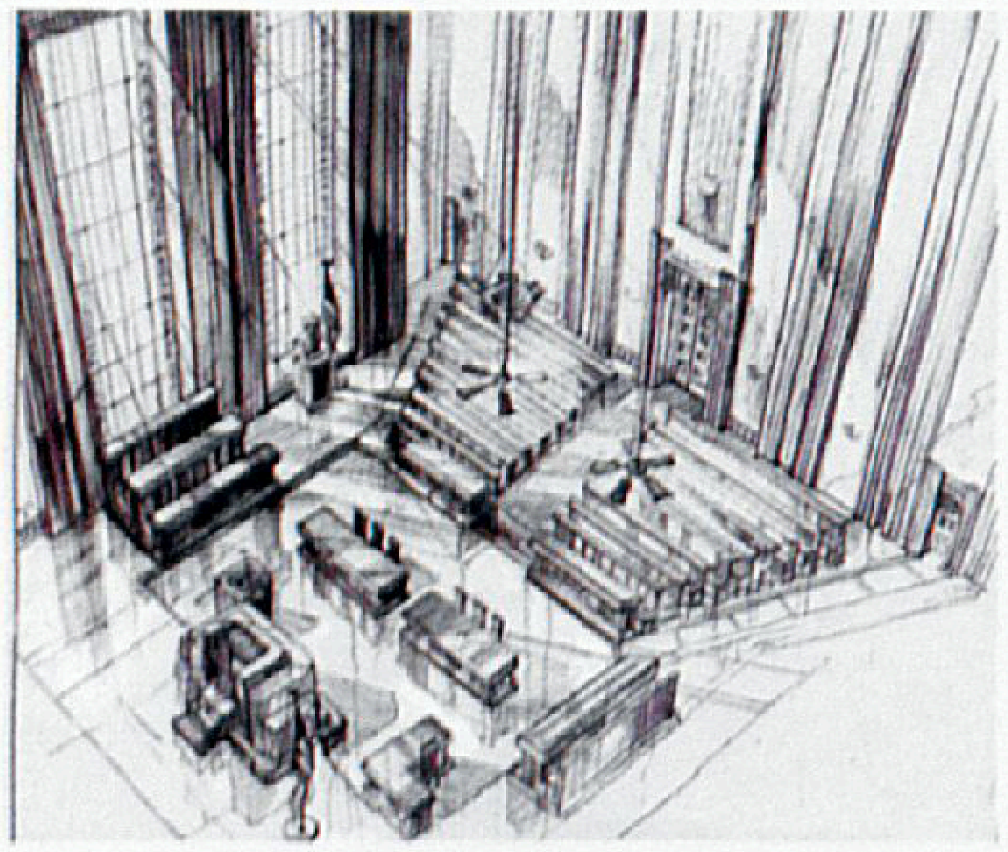
Honey farm | Tianyi Han | digital

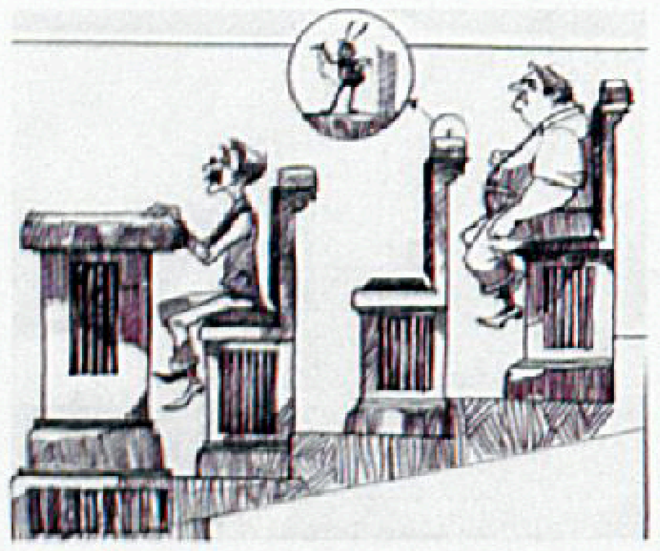
Taxi pick-up | Tianyi Han | digital

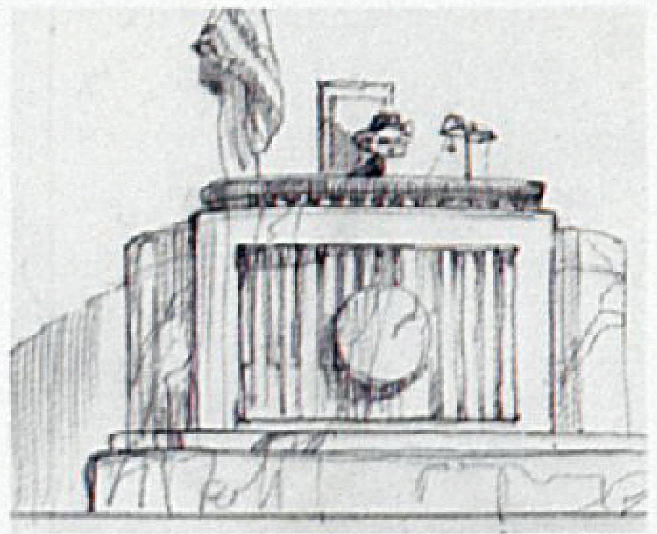
Courtroom

Courtroom color key | Ruben Hickman | digital

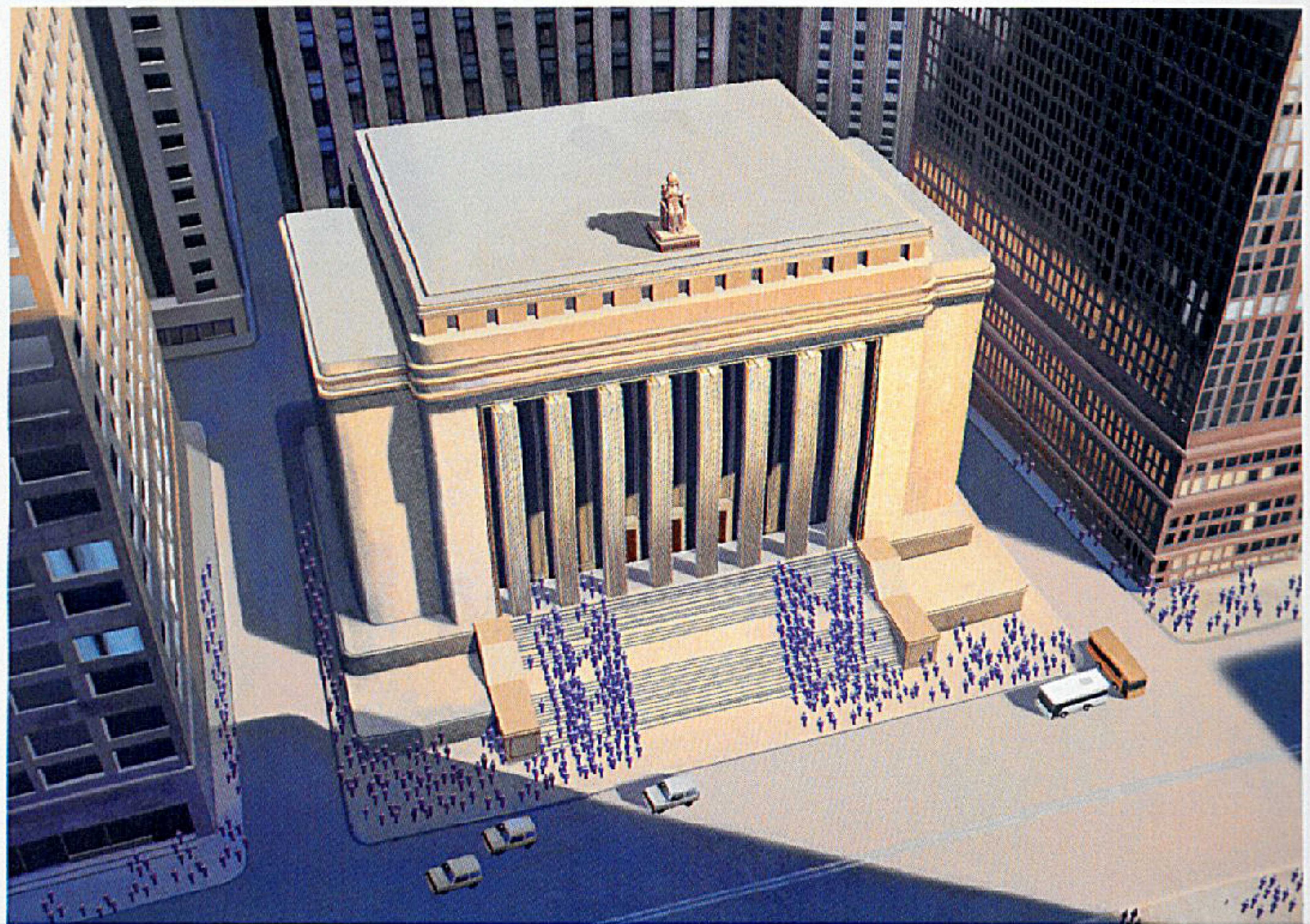
Courtroom interior | Emil Mitev | pencil







Courthouse exterior | Tianyi Han | digital



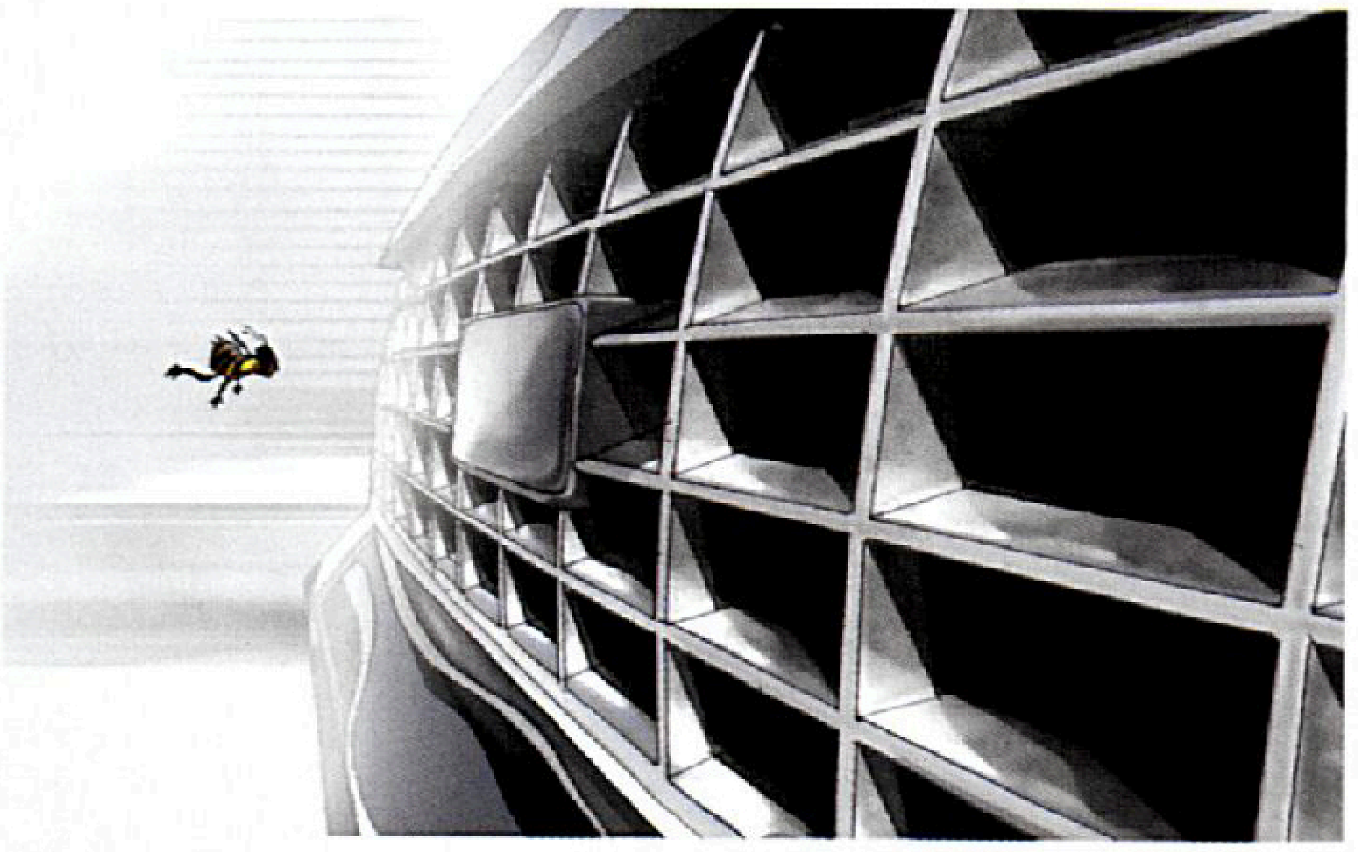
"One of the things I think we've been very successful with on this film is doing more and more of our design process in the computer. We'll go very quickly from a rough sketch—sometimes no sketch at all—straight into a 3-D model built by one of our visual developers. The courtroom is a perfect example of that. Very early on, we started building that space in 3-D, as opposed to doing detailed planned drawings and construction drawings. The only way we'd know if a space was right would be to put a camera in there with the characters and figure out the framing we're going to need for each of those shots. So that set, along with things like Vanessa's living room, the hive itself, and a lot of the other key environments in the world, have been designed in the computer in 3-D from the ground up."
—Doug Cooper, visual-effects supervisor

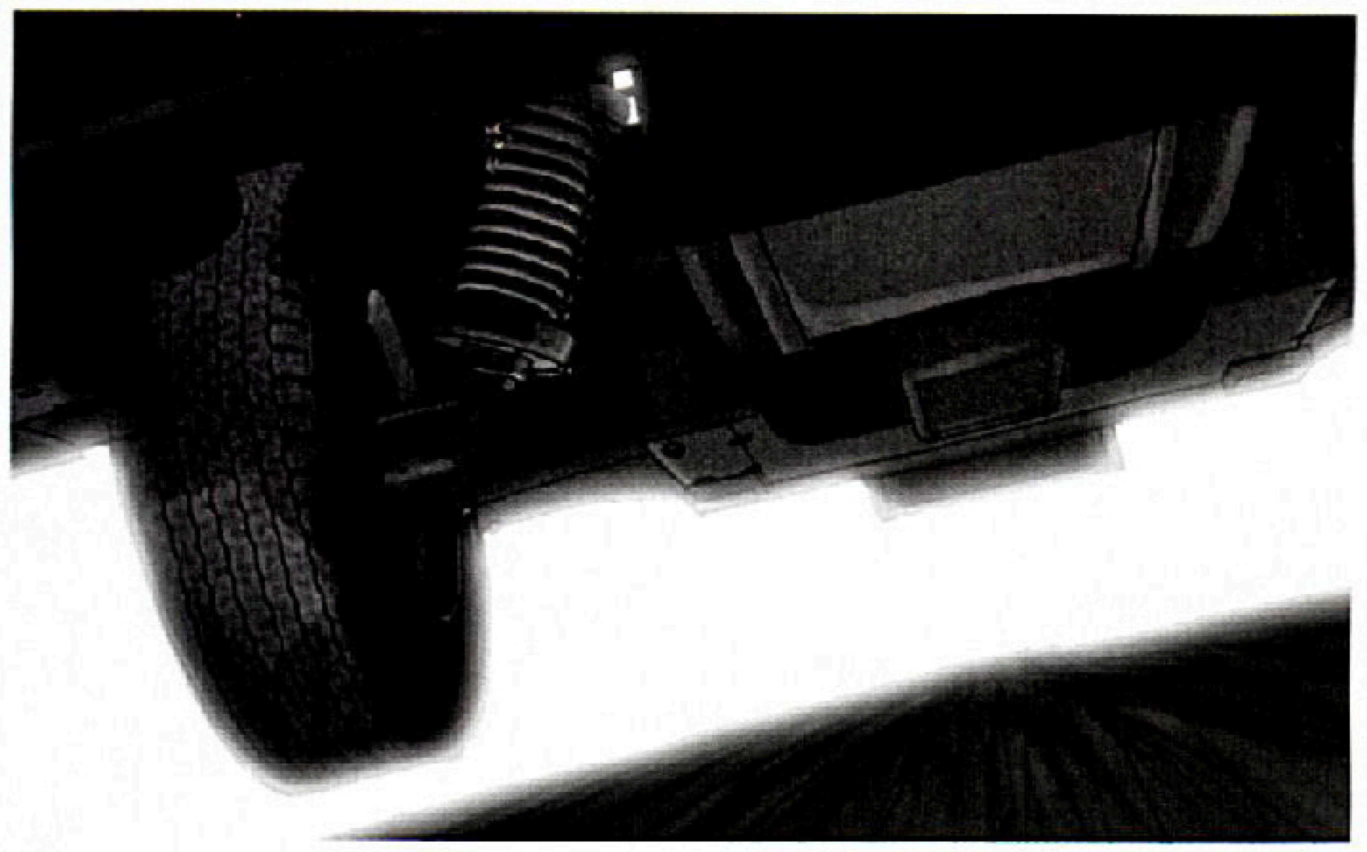
Barry microphones | Kirsten Kawamura, color; Christophe Lautrette, layout | digital

Courtroom interior | Emil Mitev | digital

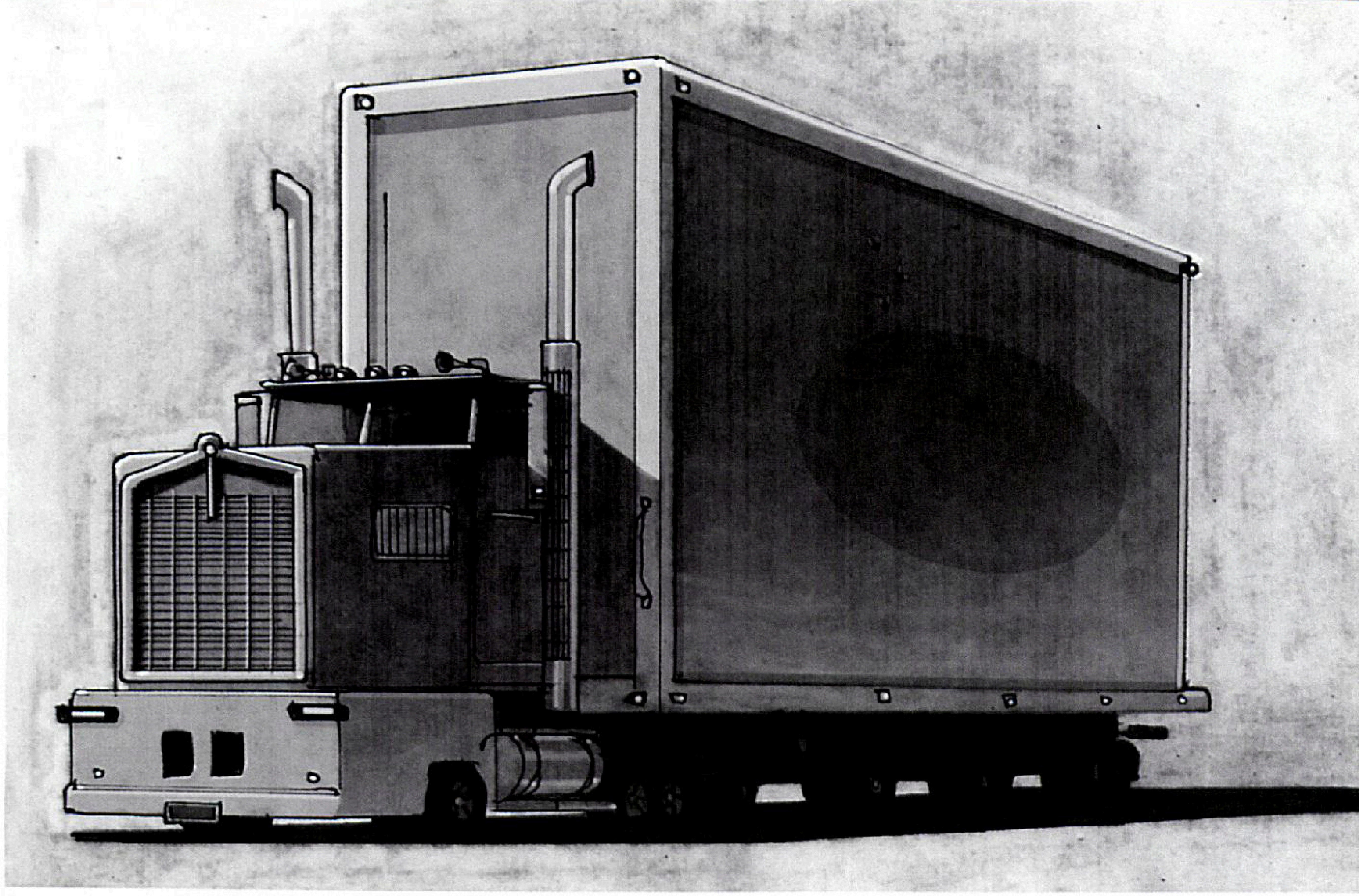
Vehicles

Generic cars | Patrick Hanenberger | pencil and Photoshop





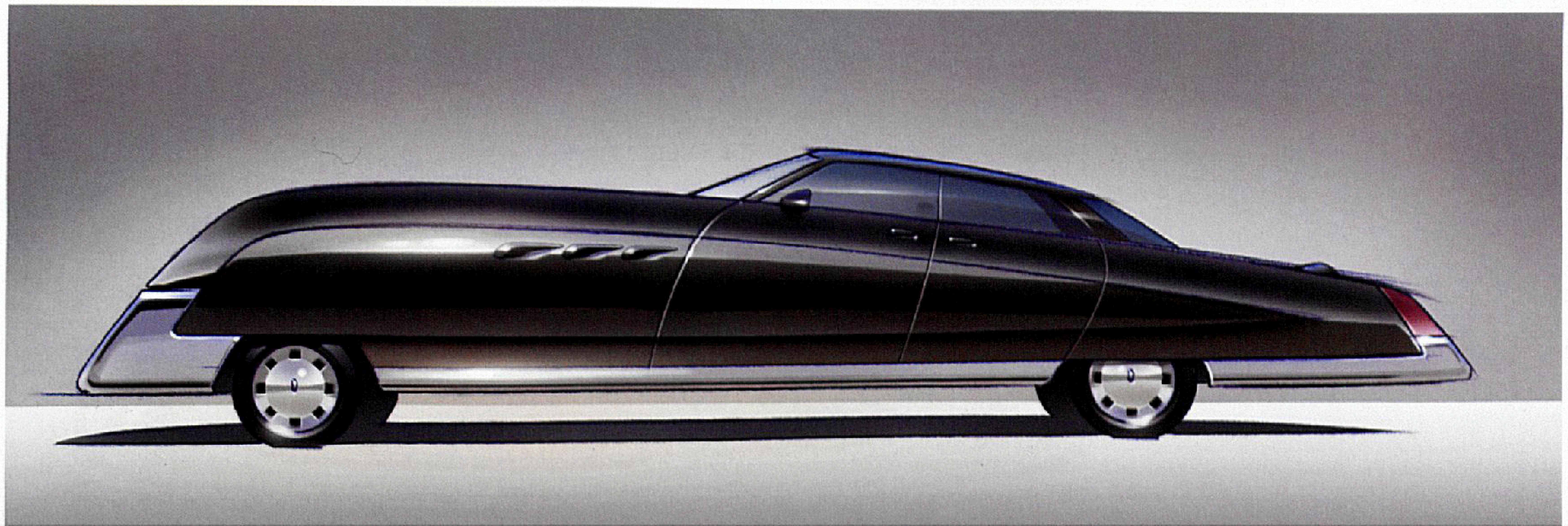
(Top) **Engine sequence** | Michael Isaak | pencil and Photoshop
(Above) **Engine sequence (5)** | Michael Isaak | digital



Manhattan truck | Michael Isaak | pencil and Photoshop

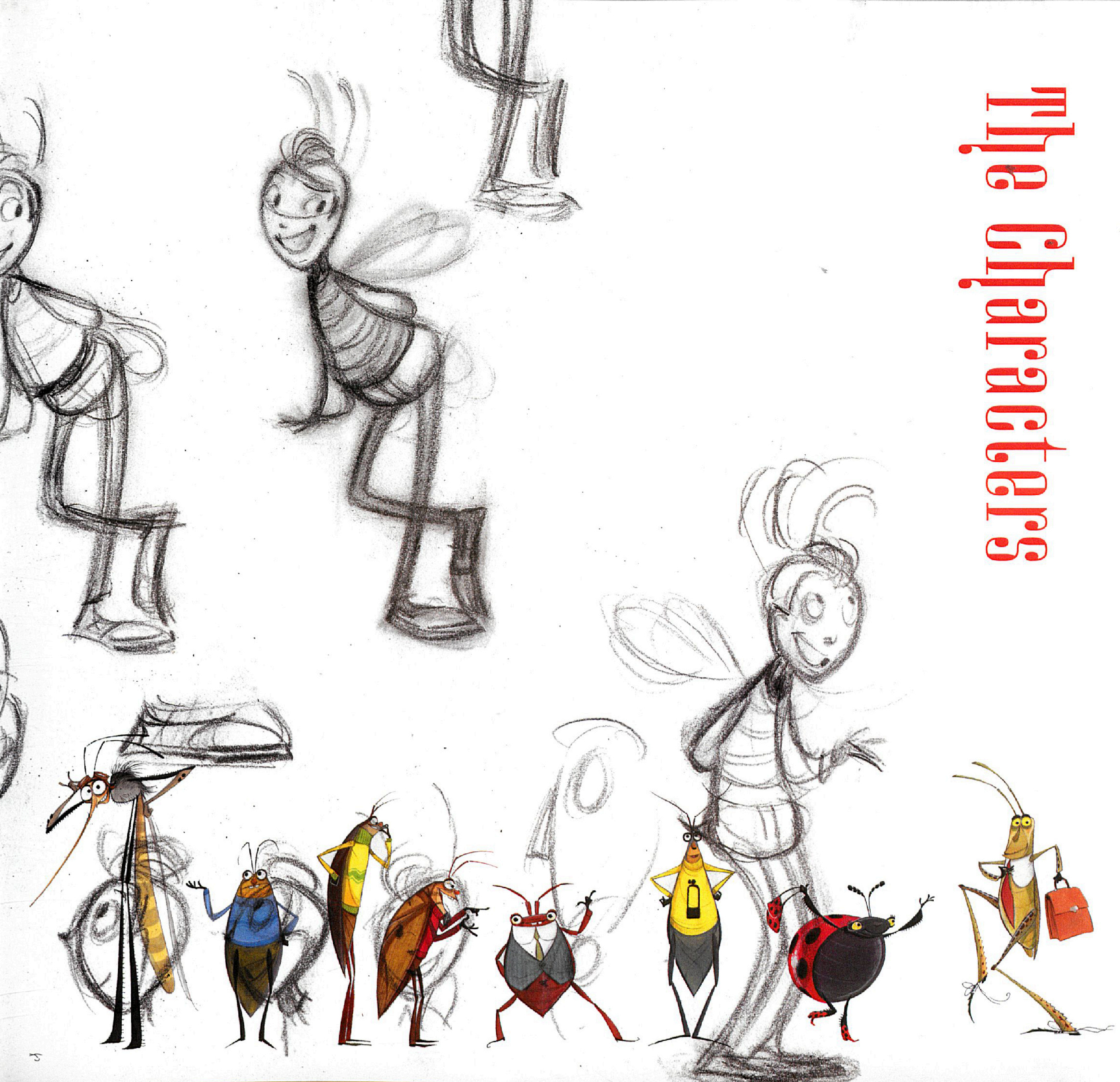
"These are cinematography beats proposing where the bee is going to be and the suggested camera angles to emphasize the danger of the situation."
—Christophe Lautrette, art director

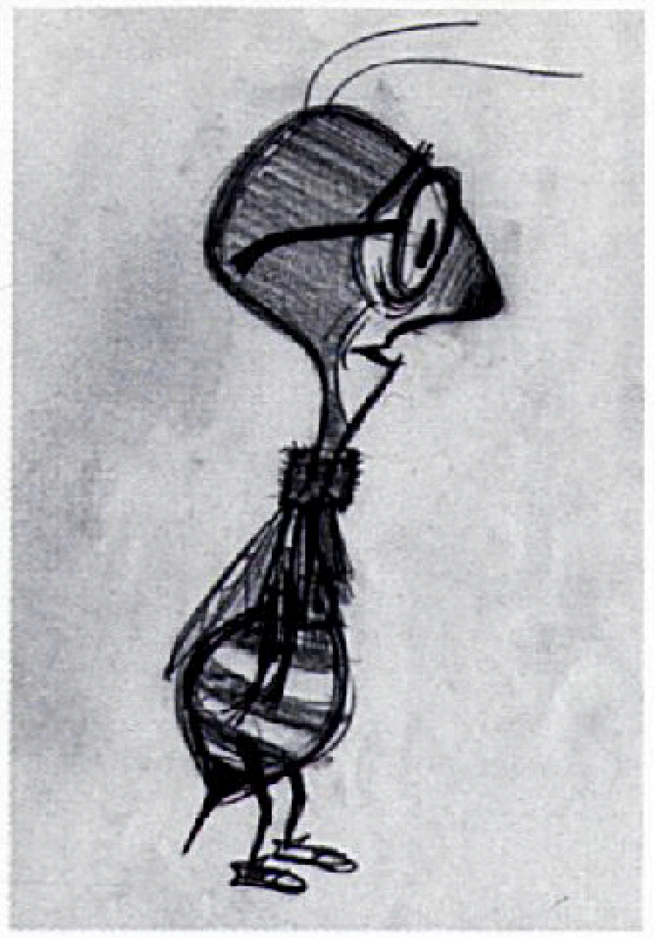
Montgomery's car | Grant Larson | digital



SUV sequence | Michael Isaak, layout; Mike Hernandez, color | digital

The Characters





(Above) **Pointer bee** | **Big-headed bee** | **Nerd bee** | **Depressed bee** | Craig Kellman | pencil
(Pages 104–105) **Bee sketches and miscellaneous bug lineup** | Carlos Grangel | pencil and marker

An animated movie can have a legendary story, a great script, and the most convincing effects ever produced, but without fascinating, visually striking characters who can engage an audience at first sight, all other efforts may be for naught. The talented animators who worked on *Bee Movie* walked a sometimes difficult path before Barry and other characters finally fell into place. The sprightly result on-screen is testimony to their hard work.

The Bees

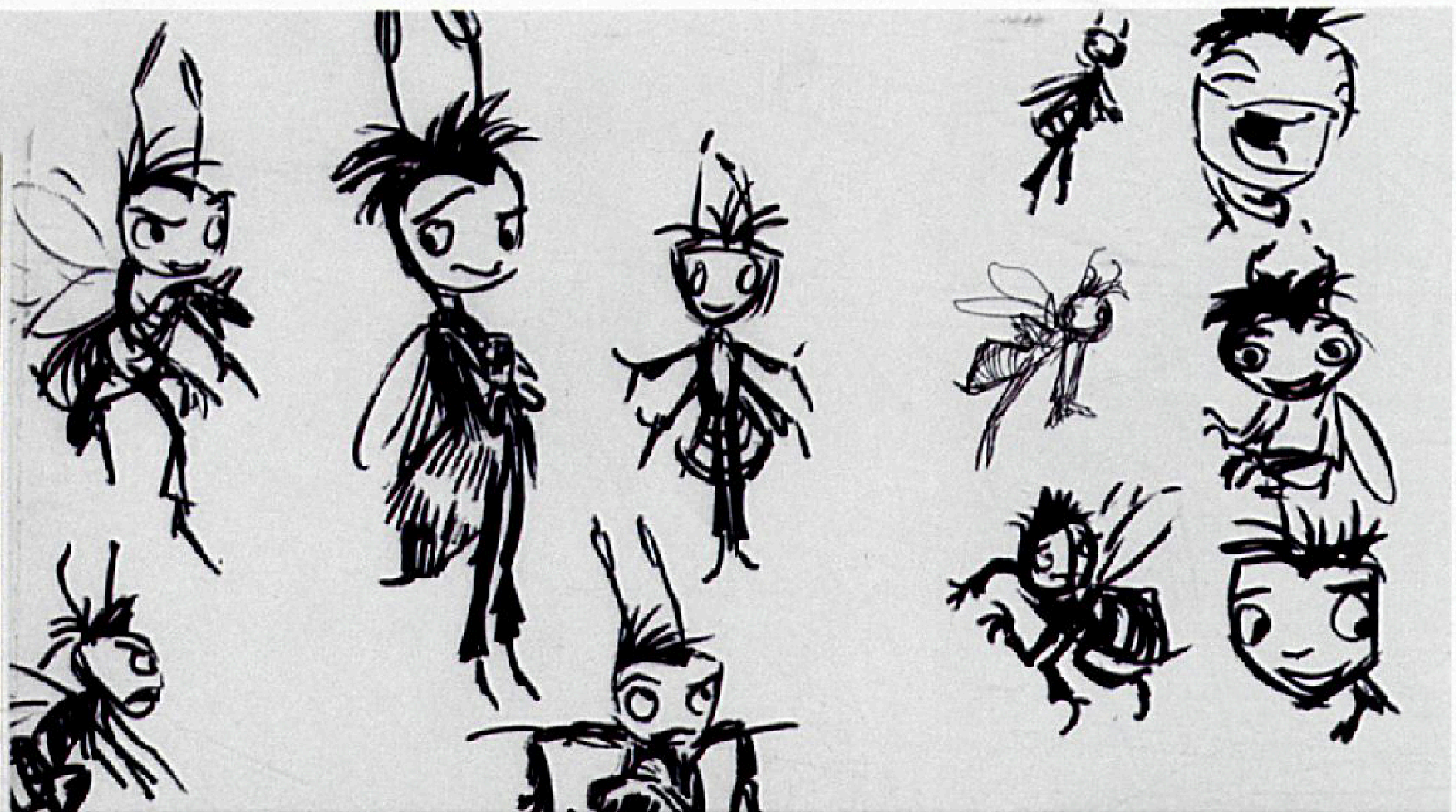
First, there was the job of defining a basic design for the bees. The designers swung between portraying realistic bees, humanized ones, and more cartoonish insects. After months of preproduction, however, the crew did not yet have a handle on Barry and the bee characters in general. Character designer Nicolas Marlet recalls that ten months passed while designers struggled to build a better bee. Director Simon J. Smith remembers that at one point, "We started storyboarding without the character design for Barry, and all the artists had different Barrys. We're wondering, 'Is this going to work?' "

"Barry was the longest exploration we did," art director Christophe Lautrette relates. "We went to caricature but then came back." Smith recalls the frustration of those early months: "The designers had done a combination of drawings, so basically we had to start from scratch on the world and the characters. We were going down one path, and none of us felt that it was right."

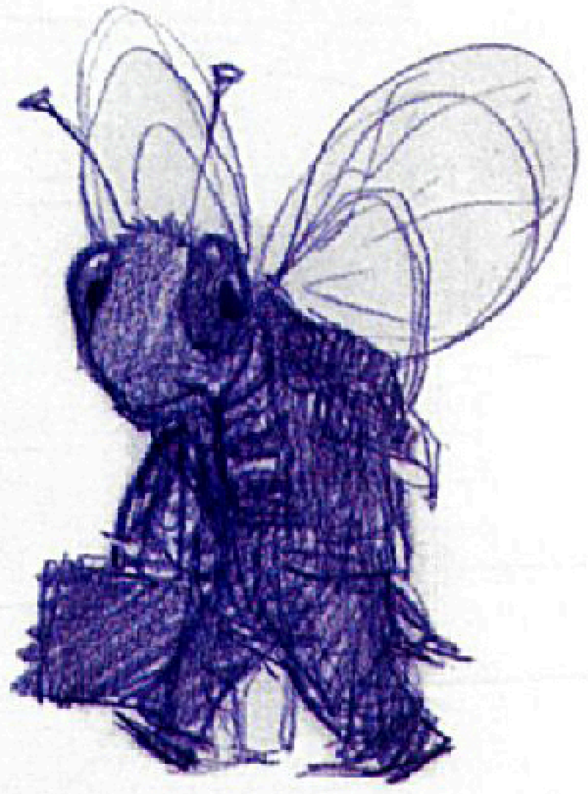
As time moved on without conclusive results, Lautrette and DreamWorks' top management came up with an all-out strategy to lock a definitive Barry into place—the Blitz. Eleven of the studio's top character designers were pulled together. For two weeks during February 2005, they produced literally thousands of character designs. Designers Tony Siruno and Devin Crane recall Lautrette telling the designers, "Start from scratch, forget everything you've ever done."

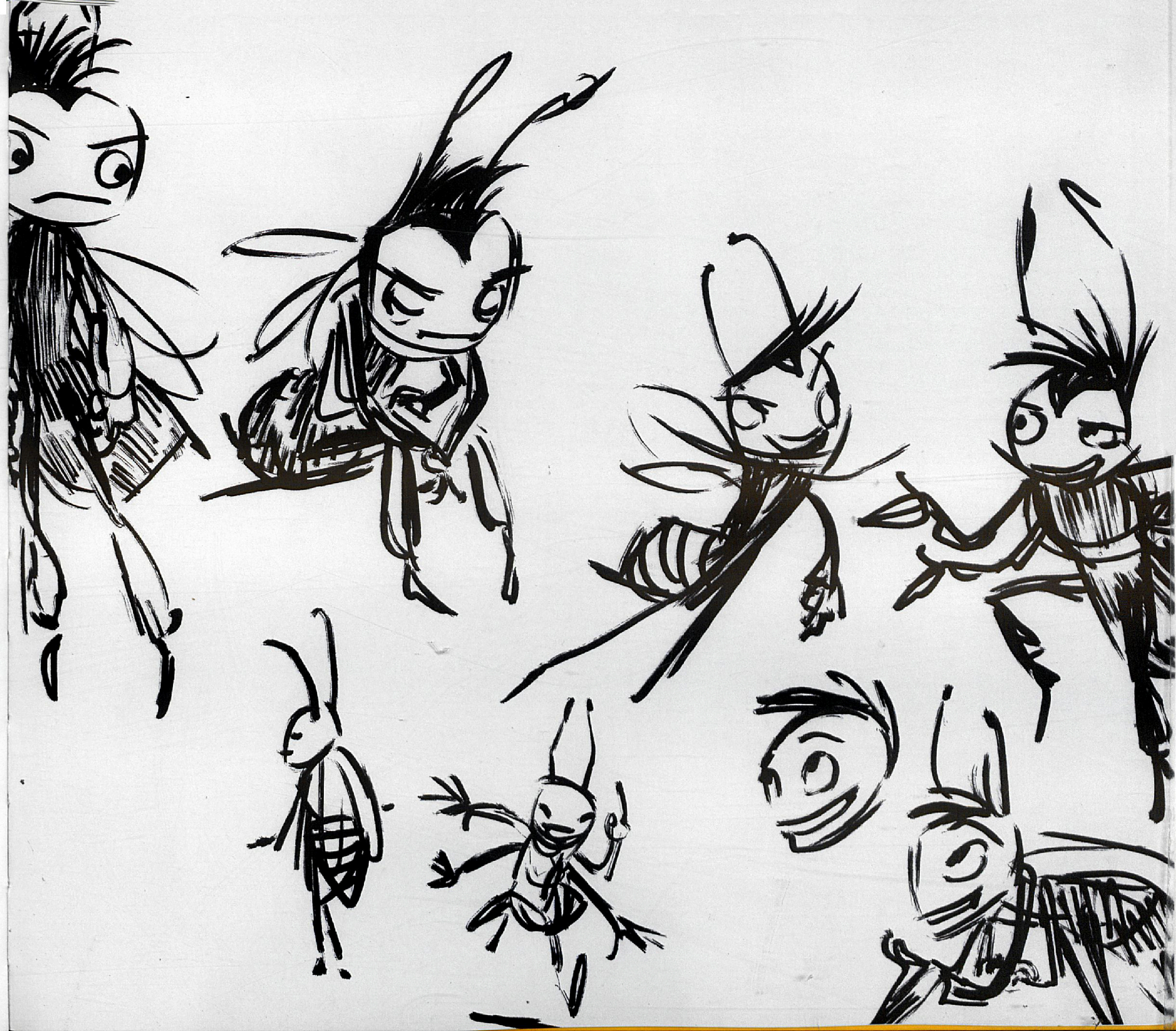
Producer Christina Steinberg remembers that Seinfeld himself helped solve some of the problems: "We were stuck on what the bees should look like. The designs were too sophisticated. Jerry was reading some comics by Chris Ware in the *New Yorker*. He called and said, 'Go get the *New Yorker*—the characters have a really round design. What if our bees were completely round and had weight problems?' "

Miscellaneous bees | Dave Pimentel | marker



(Right) **Worker bee** | Buck Lewis | pencil
(Opposite page) **Barry** | Dave Pimentel | marker





When the Blitz finally ended, the team reviewed the results. Certain elements were chosen and combined, and the version of Barry seen in the movie was all but set for the production team. "Ultimately, we arrived at the characters you see," Steinberg recalls. "It was all based on them being round and having a big bottom that's a little unruly as they walk, as if they are a little embarrassed about their weight. It makes them walk in a funny way, and the bees were more humorous, cuter, and more appealing. That seemed like a great counterbalance with the sophistication of the dialogue."

"Bees are chubby, they are cute, they are furry, and we wanted to emphasize that aspect," says Lautrette. "And we went all the way." At the end of the day, the production team was very satisfied with the unique and charming characters they developed.

The Humans

Vanessa, the female lead, required a different sort of design work, one that would make a human female look perfectly natural playing against an animated bee. As in other aspects of the film, a balance between stylization and realism proved to be the key. Producer Christine Steinberg recalls, "At first, Vanessa was too stylized; she looked like a doll or a robot. After a long time, we found the bridge between the two."

Commenting on the characters' development as production progressed, visual-effects supervisor Doug Cooper says "Something I'm really proud of is the balance we have found between detail, realism, and stylization for our characters, specifically Vanessa, because she really has helped us establish the language of the look of our film." Originally, the designers skewed Vanessa toward Greenwich Village bohemian, but Seinfeld wanted her to be a real person. "She is a florist," says Christophe Lautrette. "She has good spirits. We wanted her to be really casual and down to earth."

Director Steve Hickner concurs. "Vanessa, in a way, looks very real," he says. "She's got little freckles and stuff, although she's not one of those very realistic humans, like we've done in some of our other movies." (Princess Fiona in *Shrek*, for example, or Gladys in *Over the Hedge*.) "What that allowed us to do was some broad acting on the humans. You still believe that Vanessa, Ken [Vanessa's male suitor], and Montgomery [the humans' lawyer in Barry's lawsuit] are human, and they are sophisticated visually, but it's not superrealistic."

The design team, to Smith's delight, had considerable help from the actress who voiced Vanessa's character. "Renee Zellweger was one of the most prepared actors we've had," he says. "She made notes on every scene and had pictures of the character that she pitched to *us*. She told Jerry and us how she saw Vanessa and how she would fit in, and it was exactly how we were imagining it. We didn't want her to be the generic female lead. We wanted her to have a bit of a cut."

Because of the design team's efforts, *Bee Movie* produced some of the most memorable characters in DreamWorks history. Barry Benson is a charismatic American hero in the classic Jimmy Stewart mold. His intentions are noble; his actions are heroic. As Hickner put it, "Just like Bugs Bunny, he has no limits on what he can do."

VANESSA

Vanessa

(Above) **Early Vanessa** | Christophe Lautrette | pencil and Photoshop
(Left) **Girl and a bee (early Vanessa sketches)** | Nico Marlet | pencil and marker

> "Jane Poole was basically our costume designer. She defined what kind of girl Vanessa is through her clothing."
> —Christophe Lautrette, art director

Models/moods sketches for later Vanessa | Christophe Lautrette | pencil and Photoshop

Final Vanessa | Jane Poole, costume design | pencil and Photoshop

Vanessa arrives: the drawing that captured the final look of the film's leading lady. | Christophe Lautrette | pencil and Photoshop

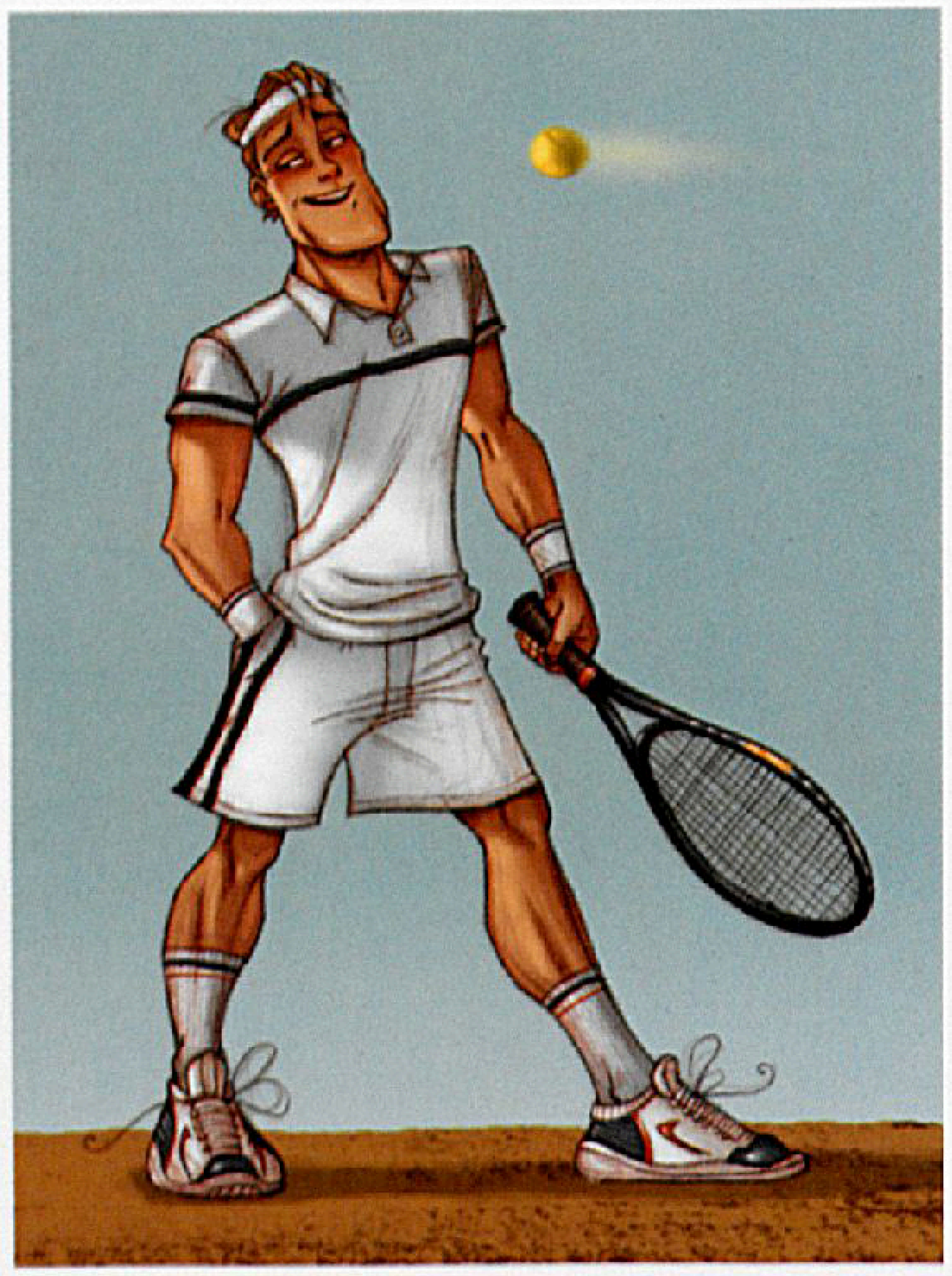
Rooftop | Michael Isaak, layout; Christophe Lautrette, characters; Tang Heng, color | digital

Barry in coffee cup | Tony Siruno, Barry design; Carlos Grangel, Vanessa design; Raymond Zibach, color | digital

Ken

"Jerry Seinfeld decided the final character design of Ken would be a combination of the upper left and the lower right, a merge of these two faces."
—Christophe Lautrette, art director

Ken faces | Christophe Lautrette | pencil and Photoshop



(Left top and bottom)
Tennis studies | Christophe Lautrette | pencil and Photoshop

(Above)
Ken facial expressions | Christophe Lautrette | pencil and Photoshop

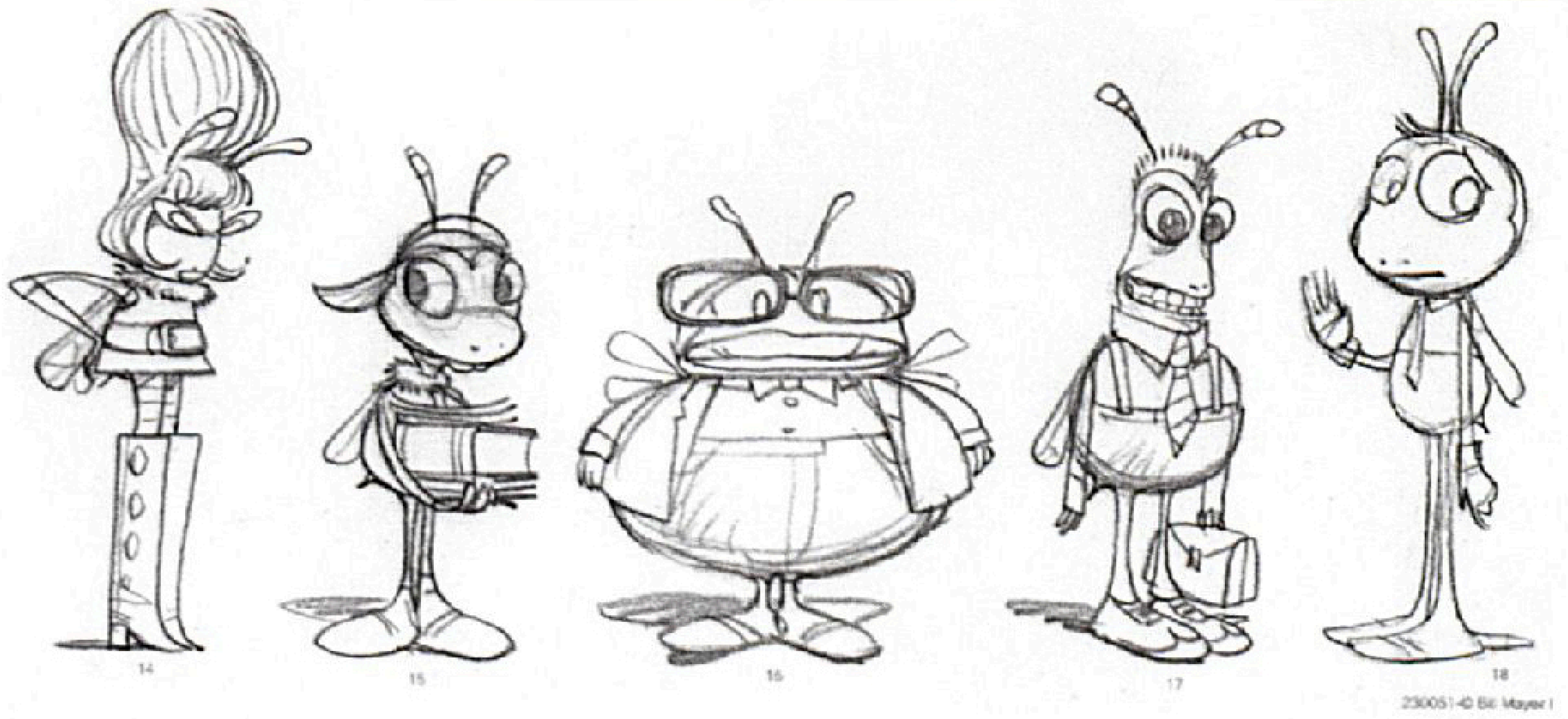
Ken concept | Christophe Lautrette | pencil

Ken concept | Christophe Lautrette | pencil

Early Bee Development

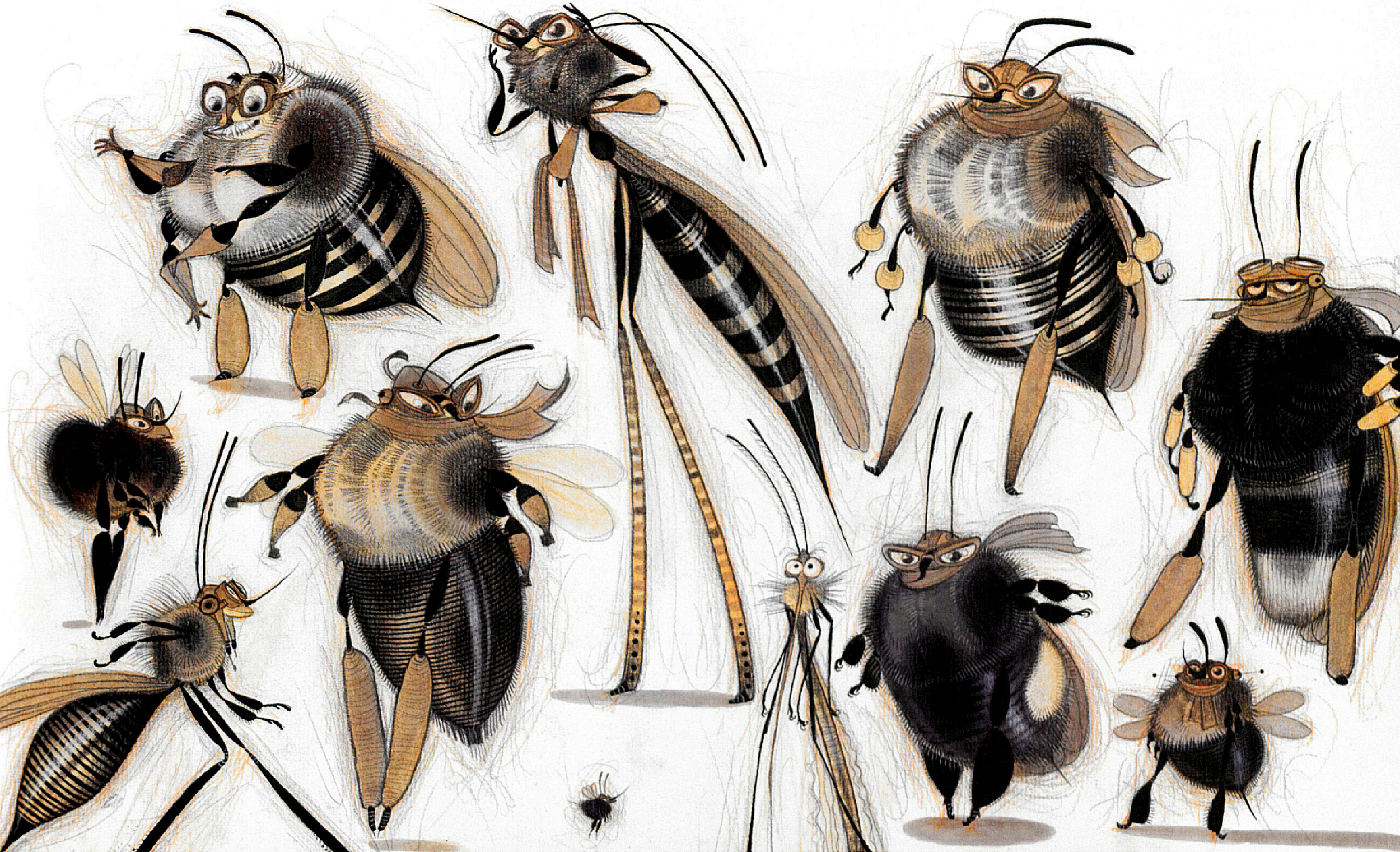
Drinking bee | Craig Kellman | pencil

Early bees | Nico Marlet | pencil and marker



Miscellaneous bees | Bill Mayer | pencil

Some of the early visual development for the bee community. | Nico Marlet | pencil



(Above) **Lou Duva concept** | Tony Siruno | pencil
(Below) **Pet Bee** | Christophe Lautrette | pencil and Photoshop

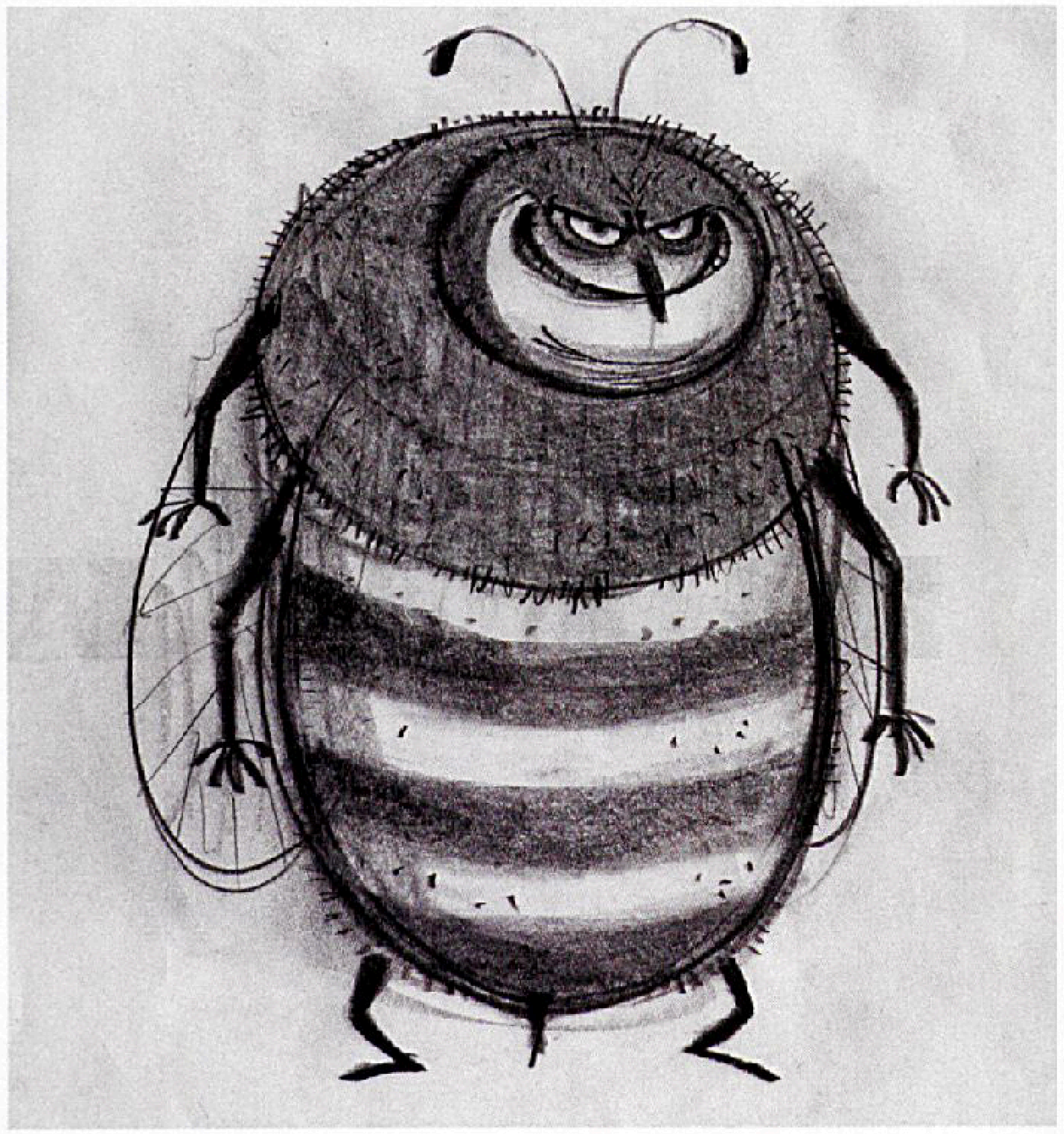
(Top to Bottom)
Shopping bee, Teacher bee, Waitress bee
Craig Kellman | pencil

Worker bee | Christophe Lautrette | pencil and Photoshop

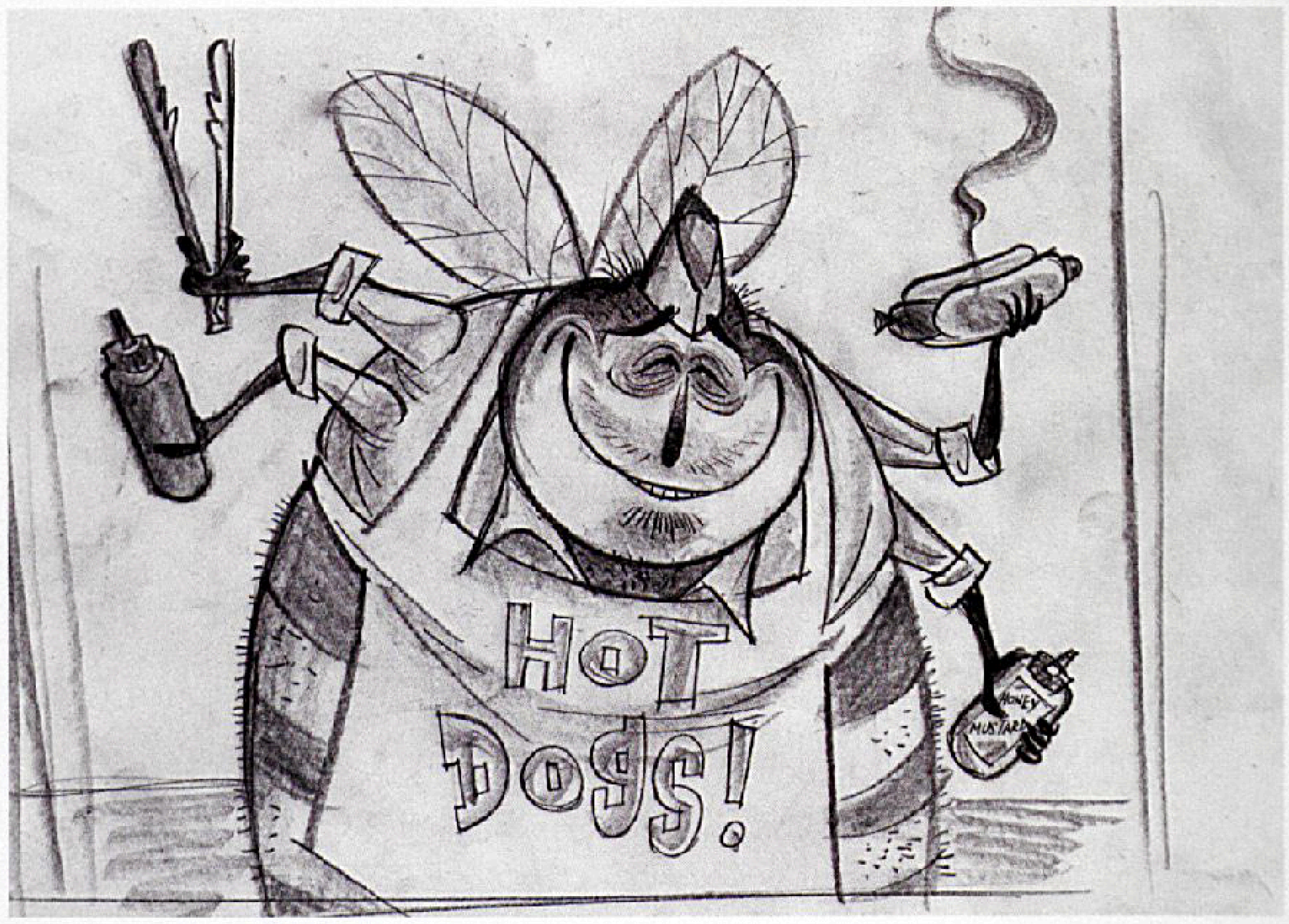
Miscellaneous bees | Tony Siruno | pencil and Photoshop

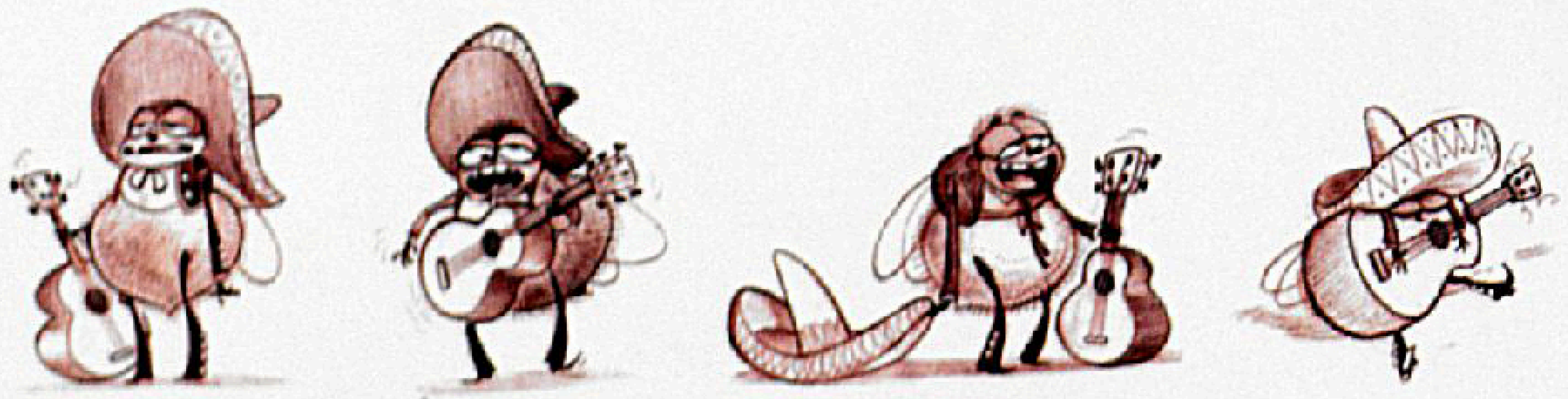
Smoking bees | Tony Siruno | pencil and Photoshop

Baby bees | Christophe Lautrette | pencil and Photoshop



(Clockwise from top left)
Baseball cap bee, Big bee, Bruiser bee, Hot dog bee, Turtleneck Bee
Craig Kellman | pencil



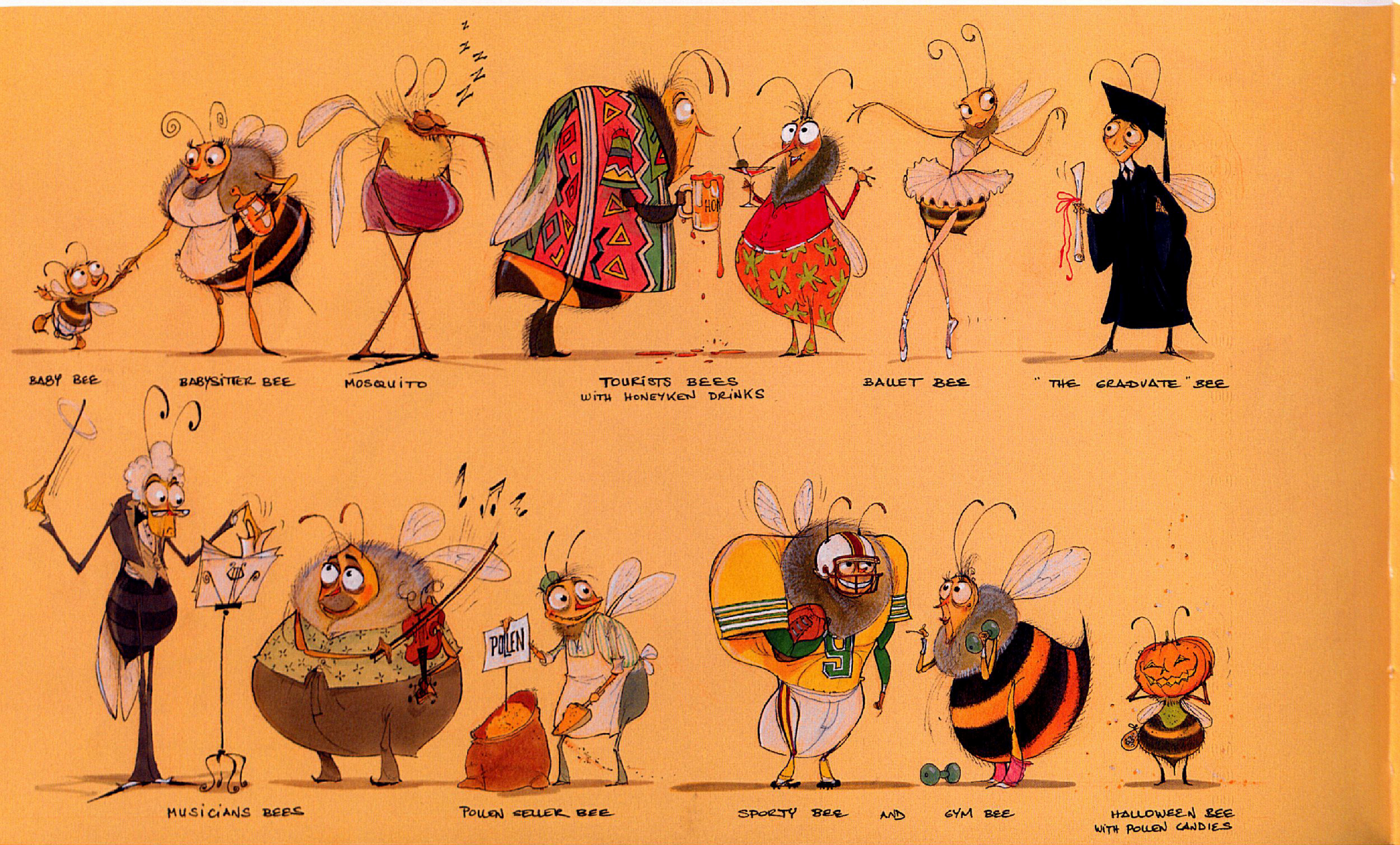


Spanish fly, Spanish fly sings, Spanish fly laughs, Spanish fly plays
Carlos Grangel | pencil and marker

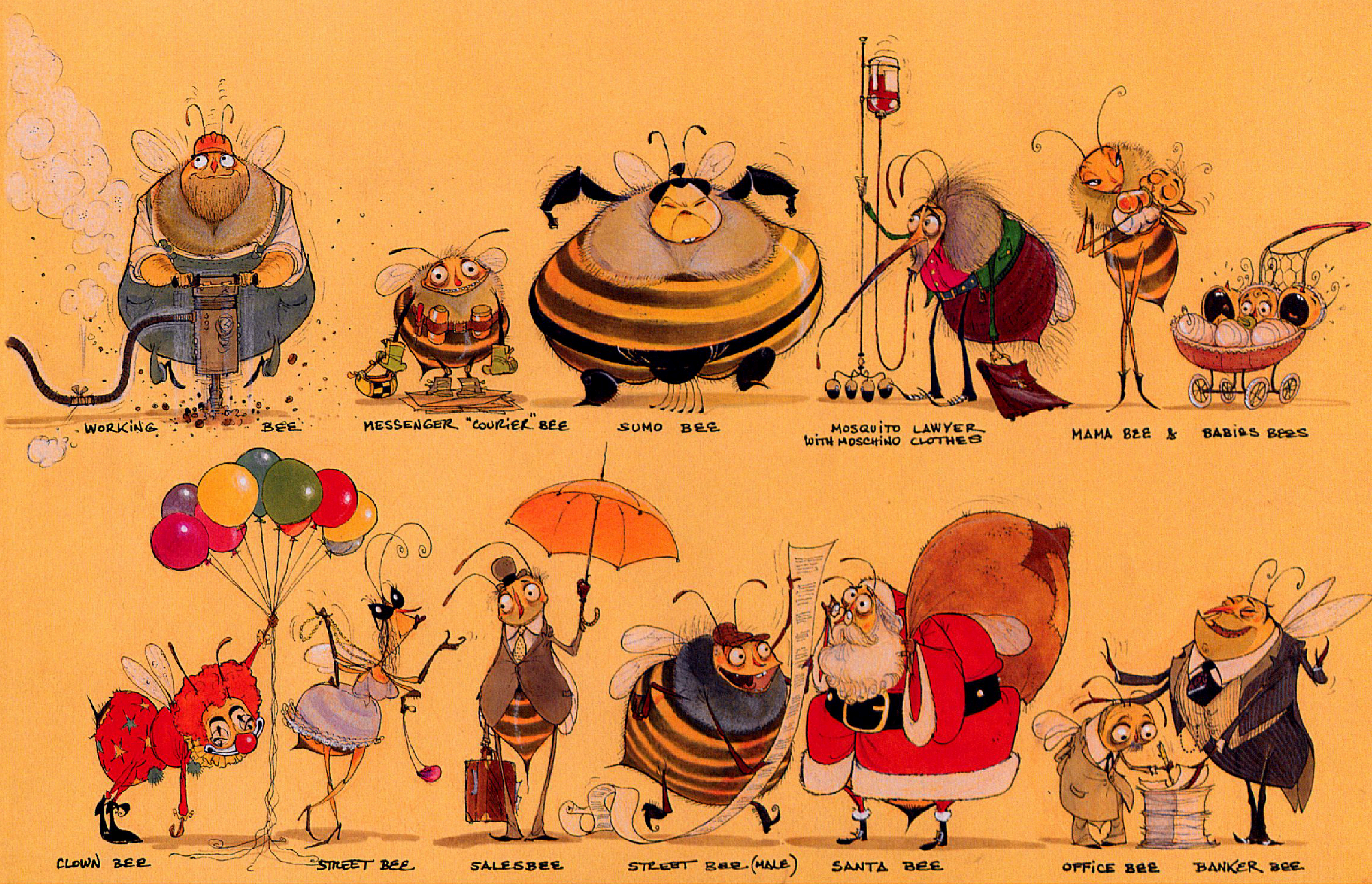
"About 11 designers were on the project at some point. There was a lot of struggling, searching, and trying everything. Everyone was working toward defining the style."
—Tony Siruno, character designer

Pollen-Jock Barry | Christophe Lautrette | gouache

Early bee development: a community of bee "extras" to populate the bee world. | Carlos Grangel | pencil and marker



"The clothing was really challenging with the bees, because Jerry wanted stripes for everything. We had to figure out how to make all these costumes with just black and yellow; so for ties, vests, and jackets, we had only two colors to work with."
—Carrie Wilksen, visual-development production supervisor



Barry

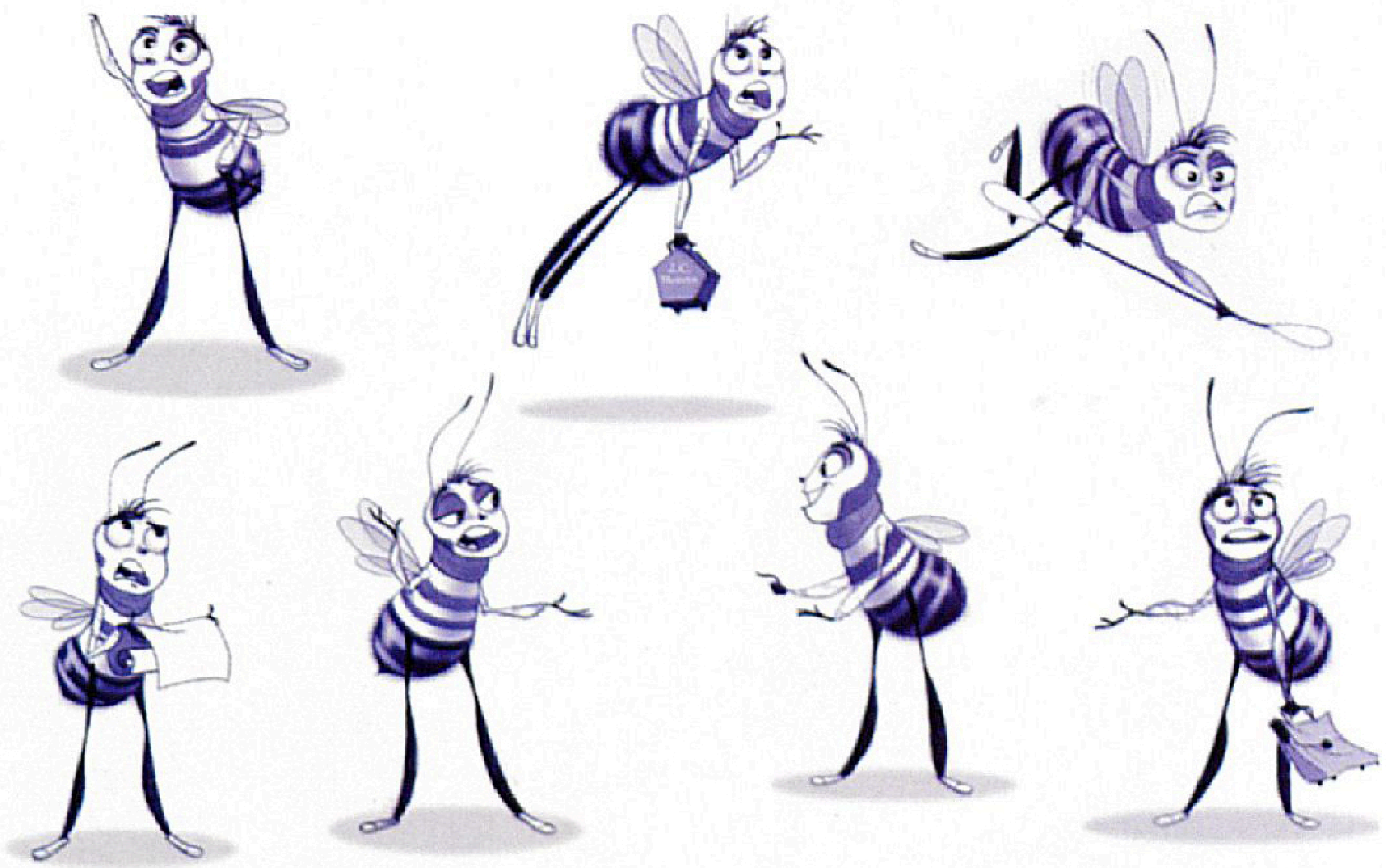
"Nico (Marlet) alone had done, like, thousands of designs. We have hundreds and hundreds of designs of Barry alone, because we were almost 10 months in trying to come up with a satisfactory Barry design."
—Tony Siruno, character designer

Early Barry design | Nico Marlet | pencil and marker

"These are important designs: For the first time Barry was a cute, interesting, quirky character. We found him."
—Christophe Lautrette, art director

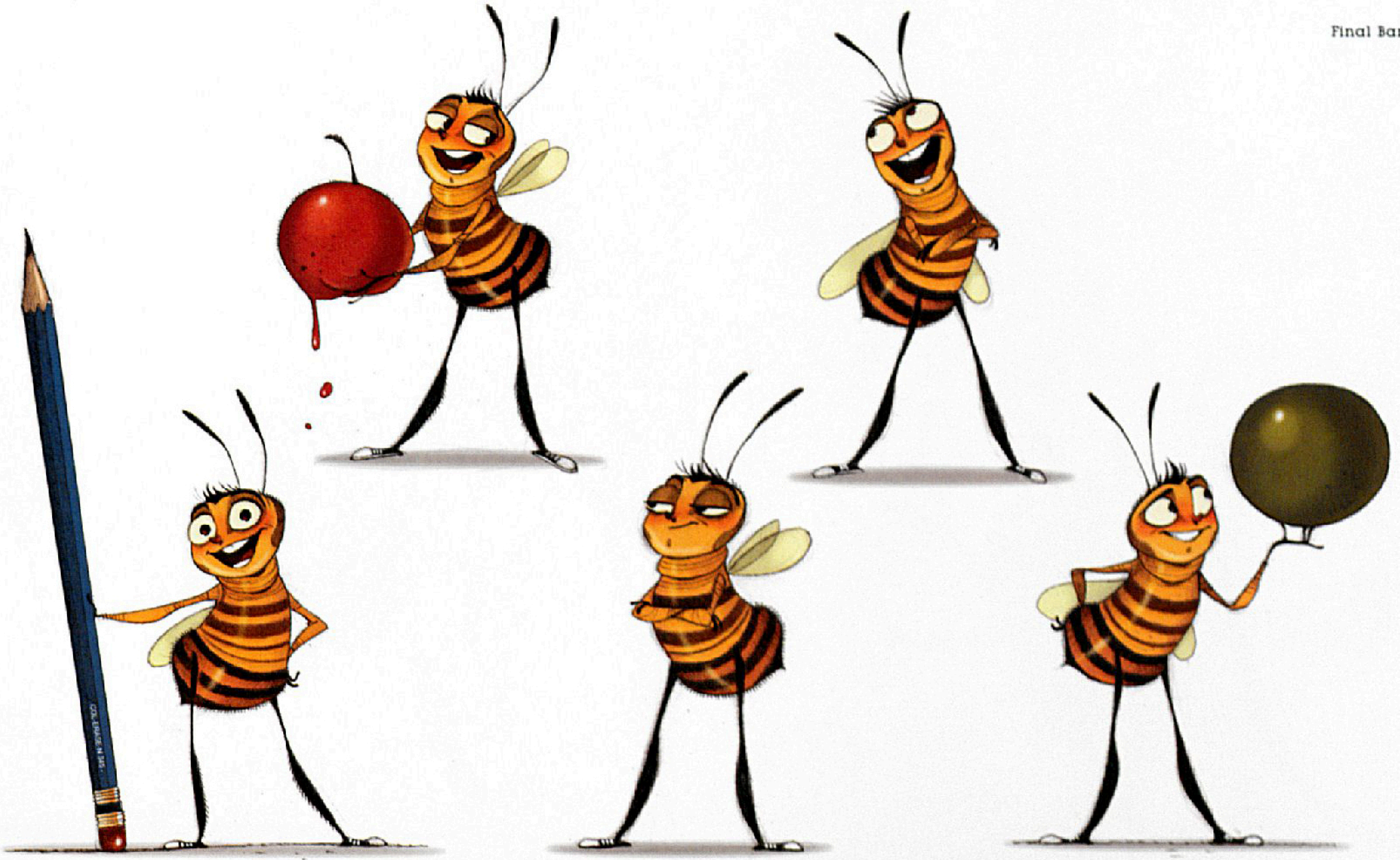
Barry maquette | Damon Bard | clay

"We are getting closer to the character. This particular page that Tony Siruno did was really successful in finding the character. We circled the ones we liked and they went straight to modeling."
—Christophe Lautrette, art director



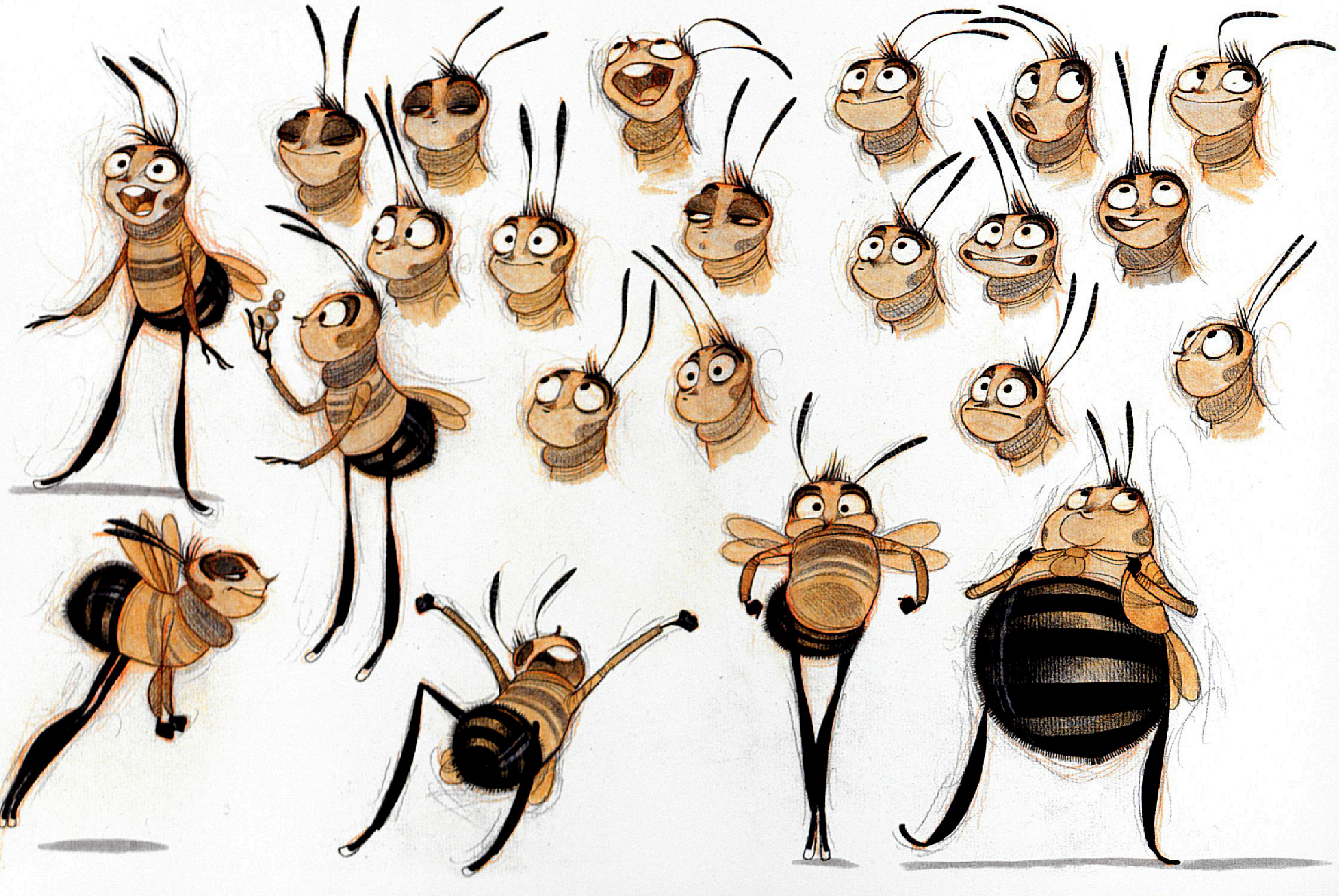
Final Barry | Tony Siruno | pencil and Photoshop

Barry poses | Christophe Lautrette | pencil and Photoshop

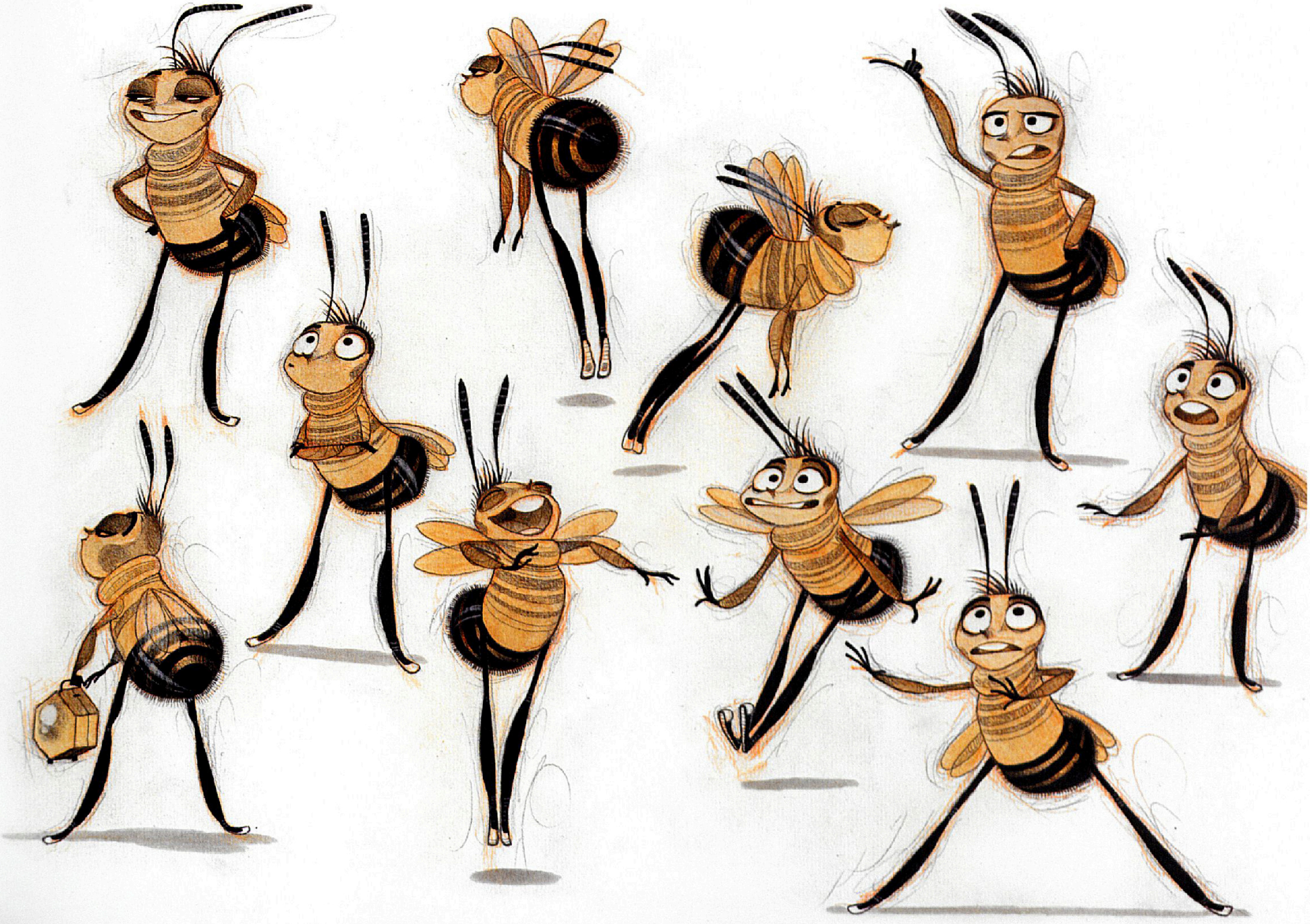


"We have created a character that is Jerry, but it's not Jerry Seinfeld from the show. His character, Barry, is a unique, funny, specific character that is separate from what people know Seinfeld to be."
—Christina Steinberg, producer

Different expressions | Nico Marlet | pencil and marker



"The more we made Barry like a person, the more it felt like he's a pixie. He wasn't a bee. We came up with a formula. Bees are chubby, round, cute characters."
—Simon J. Smith, director



Adam

Preliminary Barry and Adam | Christophe Lautrette | pencil

(Above) **Adam design** | Carlos Grangel | pencil and marker
(Below) **Barry and Adam study** | Tony Siruno | pencil and Photoshop

Early Adam development | Christophe Lautrette | pencil and Photoshop

Barry and Adam

Bee sketches | Tony Siruno | pencil and Photoshop

Final Barry and Adam painted maquette | Damon Bard, sculpting; Johnny Painter, painting | clay

Barry and Adam (early painting) |
Christophe Lautrette, drawing; Raymond Zibach, painting | digital

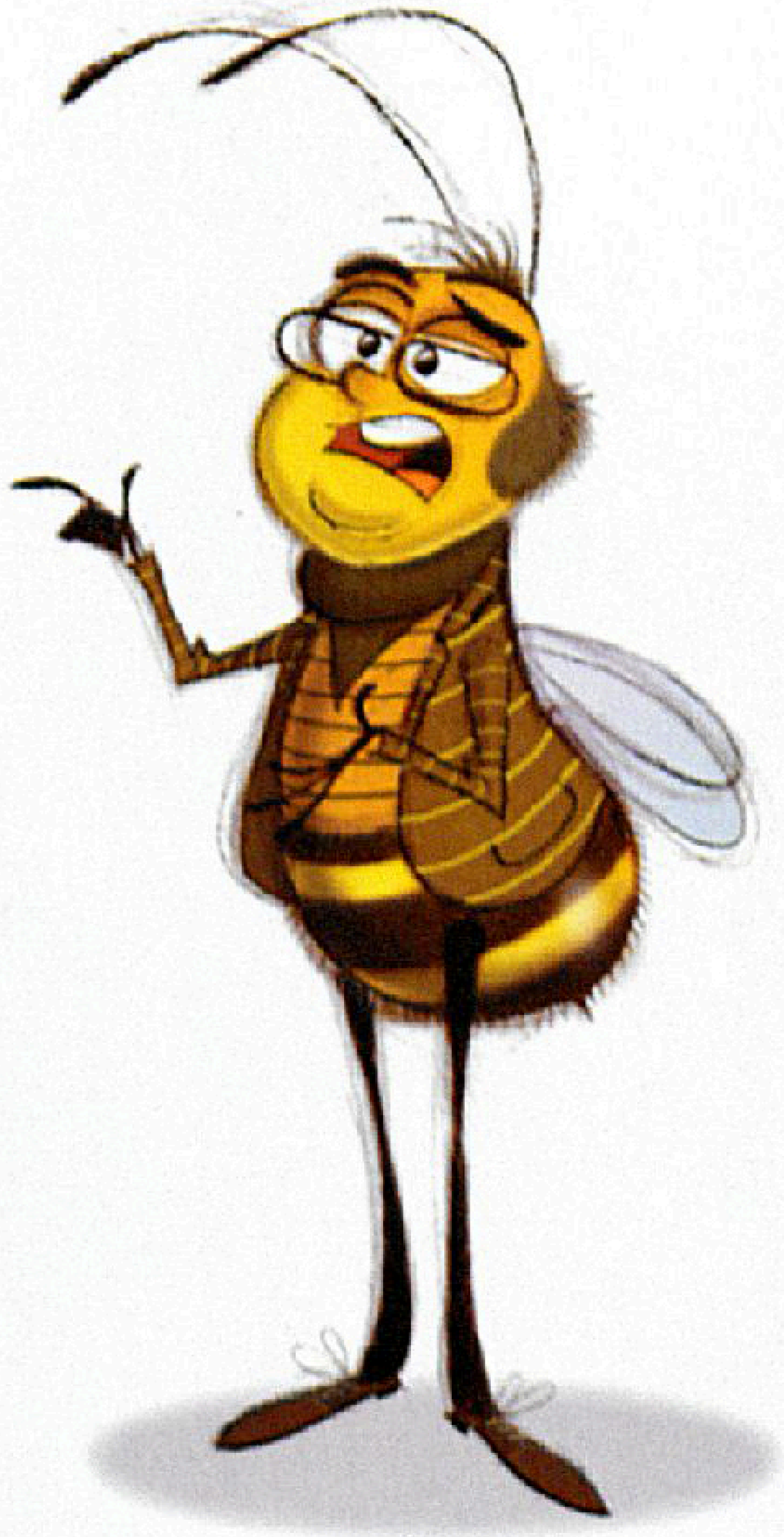
"For the bees, we found that as soon as you put shoulders with a thin neck on the body or the head, then it looked human. We decided, 'No neck,' just two shapes—large body and round head; no fur on his face, and antennas. There is a fine line between looking too insecty and looking too cute. The one distinctly bee form on them is the bum. Their bums are always showing all the time. Nobody wears any trousers or skirts or anything. It sounds obscene, but it works."
—Simon J. Smith, director

Martin Benson

Martin Benson | Tony Siruno | pencil and Photoshop

Martin Benson | Carlos Grangel | pencil and markers

"Barry's father, Martin Benson, had to look like him, so we started with Barry's face and transformed him—took away his hair, made him more chubby-faced."
—Christophe Lautrette, art director



Martin Benson | Tony Siruno | pencil and Photoshop

Pollen Jocks

Early Pollen Jocks | Tony Siruno | pencil and Photoshop

"The Pollen Jocks are the top guns that go out and collect the nectar. They are so big and their wings are so powerful that when they take off from a flower, they literally produce a rotor wash, like a helicopter in the desert. But all that is pollen, kicked up in a big cloud as they launch off a flower and leave this huge trail behind them."
—Doug Cooper, visual-effects supervisor

Various Pollen Jocks | Christophe Lautrette | pencil and Photoshop

Queen Bee

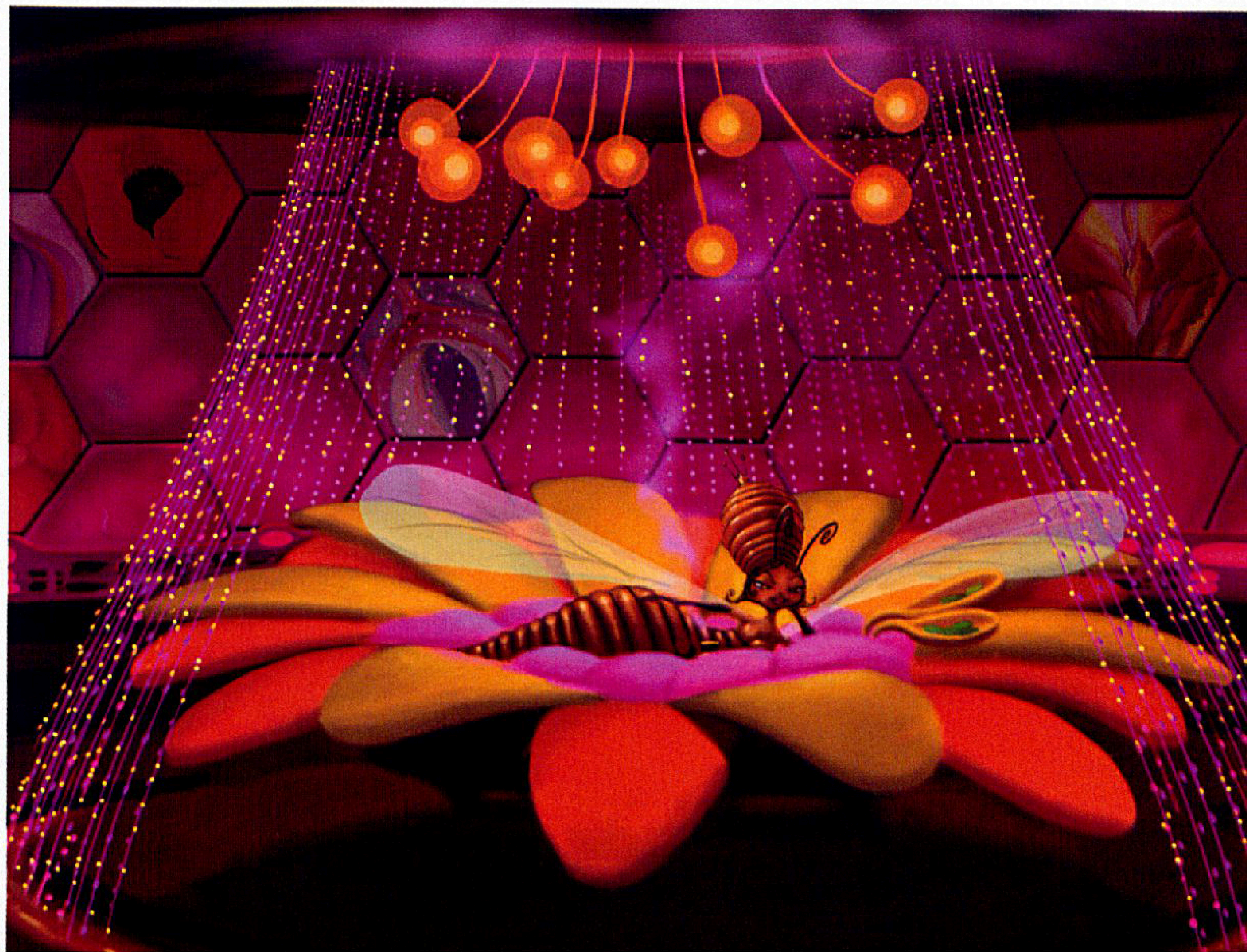
The most distressing thing about this process,
n the beginning, is that people are doing
hese amazing pieces of work, and when they
inish, you know it's not quite right for the
novie. But they're fantastic pieces of work."
–Simon J. Smith, director

Early queen design | Christophe Lautrette | pencil

"The queen bee didn't change much from day one. . . . She ended up being a really pretty bee. She had long legs and a long abdomen, like a real queen bee. Now she's not even in the movie."
—Christophe Lautrette, art director

"We wanted a floral influence, but we also wanted [the queen's palace] to share the visual language of the beehive—a clean shape, something sophisticated and romantic. We designed something where it would actually be a rose from one point of view. It's thought that if Barry dropped into the top of these petals, they would open, let him in, then close."
—Michael Isaak, visual-development artist

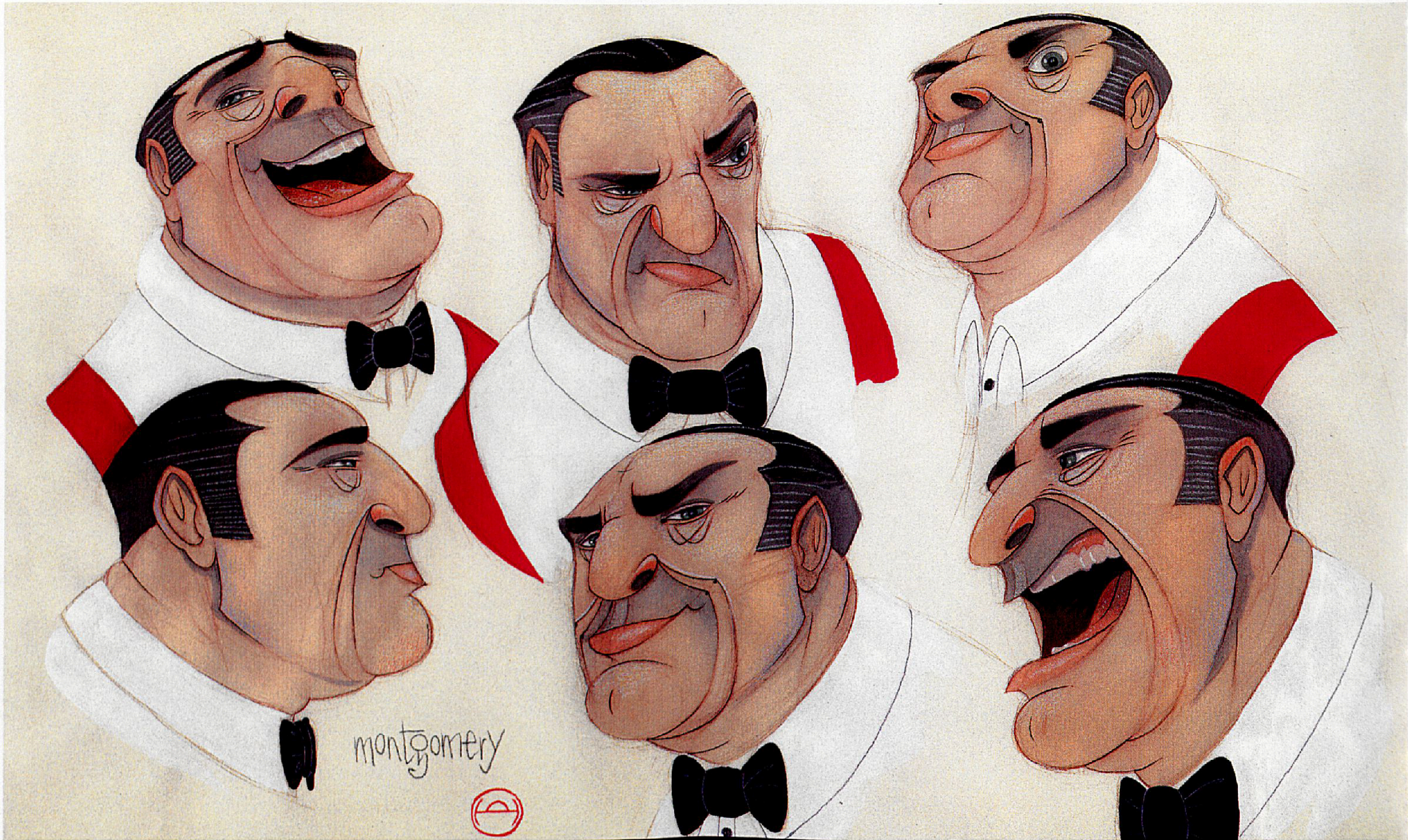
(Above) **Queen bee** | Tony Siruno | pencil and Photoshop
(Left) **Queen bee** | Christophe Lautrette, drawing; Ruben Hickman, painting | Photoshop
(Below) **Queen's lair** | Kirsten Kawamura | digital



Montgomery

Early Montgomery | Carlos Grangel | pencil and marker

Montgomery | Thomas Thesen | pencil and marker



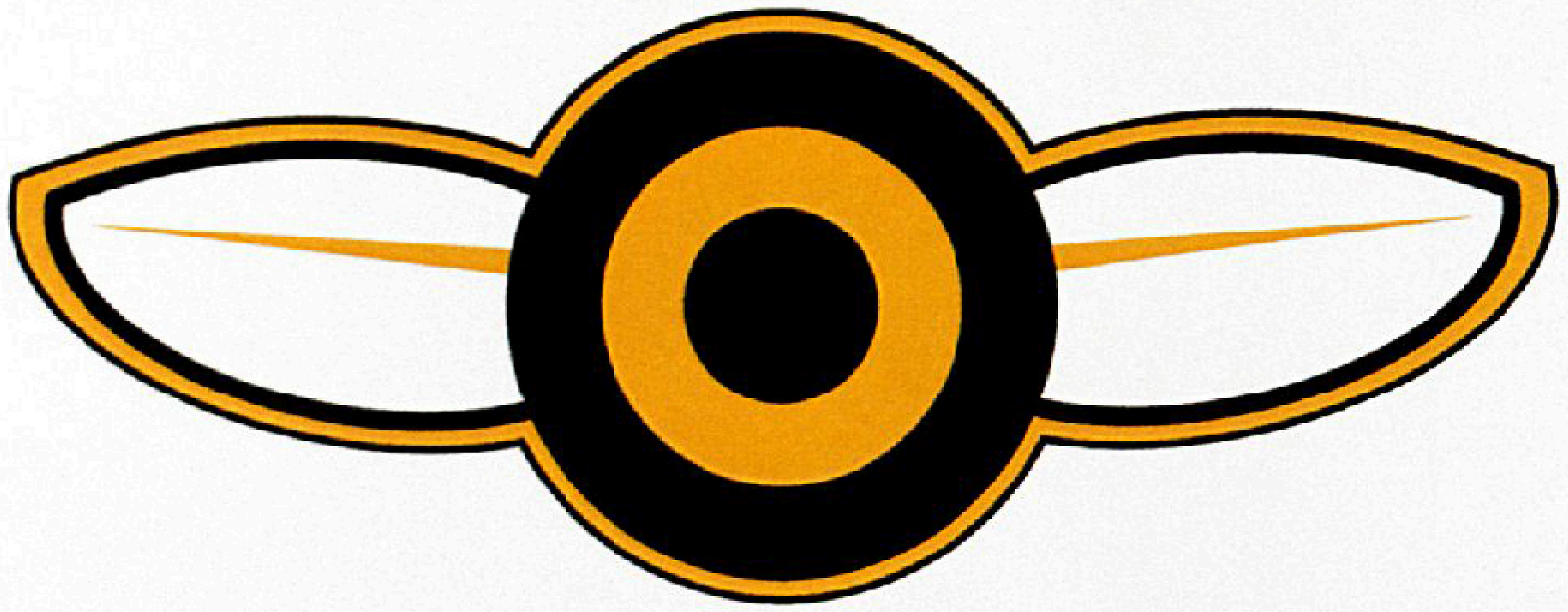
Montgomery | Carlos Grangel | pencil and markers

"Devin Crane, one of our character designers, came up with a simple solution to create one kid-design shape that could fit all the boys and girls. Just change the clothing and the color of the hair, and you have a group of kids."
—Christophe Lautrette, art director

Kid Lineup | Devin Crane | pencil and Photoshop

ACT-ONE

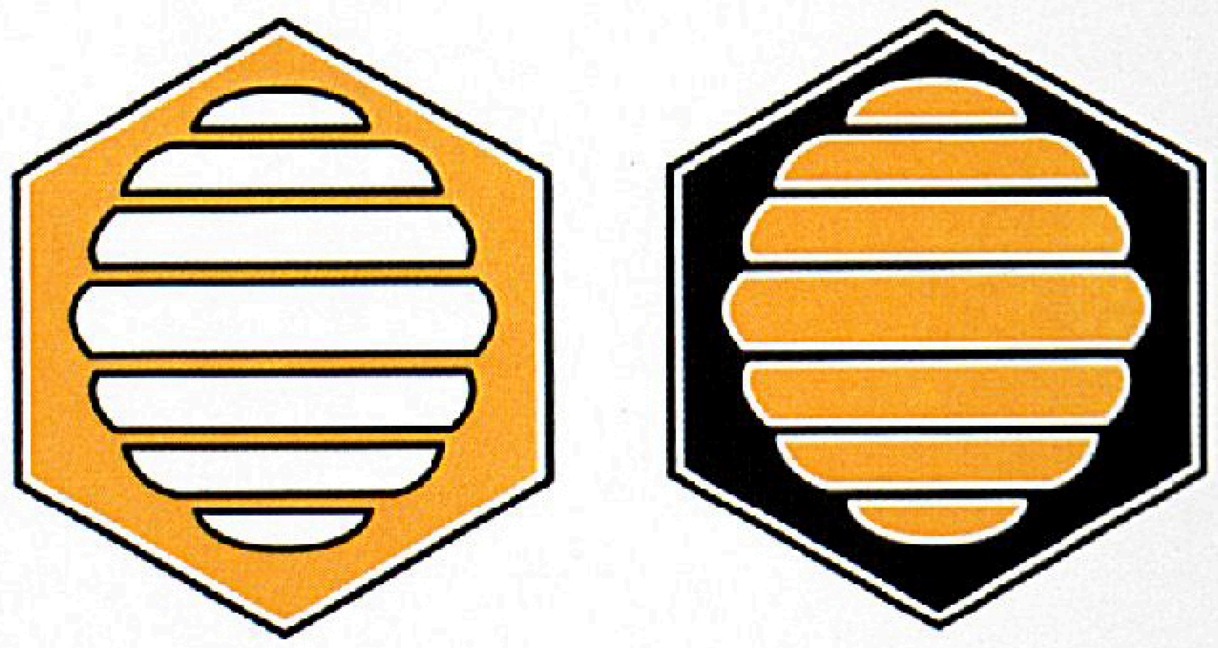
Visual effects, Props, and Graphics



Each animated film has a unique style largely defined by the creation of a world that audiences are invited to inhabit for the duration of the movie. This development can be a complicated task and an adventure for the production design and visual-effects crews. The lighting, the textures, and the overall designs seen in the film—from the largest buildings to the smallest props—must be consistent with the shared vision of the film's creators, or the entire fantasy can crumble.

"The production designer is responsible for the look of the world and the framing of the characters," explains production designer Alex McDowell. "Together with the art director, he translates the words into images and is responsible for how that translation occurs in the purest way possible. It is essential to give a consistency and coherence to the vision and arc of the film. You can't juxtapose a photorealistic human world and a stylized bee world. As much as anything, I think, that's what makes a film work or not."

According to visual-effects supervisor Doug Cooper, the job is as big as it sounds. "What we usually classify as 'effects' in a film like this is, if it moves and it's not a character, it belongs in the effects department. So that's generally all natural phenomena, or anything that has an impact or effect on the environment—things like rain, clouds, lightning. We have all of those in our film."



Helmet logos | Kevin Conran | Photoshop Illustrator

(Above) **Pollen-Jock logos** | Kevin Conran | digital
(Opposite page) **Pollen-Jock insignia** | Kevin Conran | digital
(Pages 140–141) **Color script** | Tianyi Han

Making props and effects appear too realistic can defeat the purpose of creating an animated fantasy. For Cooper, the solution was to come up with the right amount of stylization to fit the film's vision. "The visual style is established from the very beginning," he explains. "We start with real-world references and then figure out what parts we are going to exaggerate or bring forward—just find out how this fits into my world. Then we have to figure out how we are actually going to execute it technically. So, once you understand how a material works, you start figuring out how a computer would simulate that material. We want to make it believable, but we want to stylize it, too. We're not going for photo-realism; we're going for an entertaining look."

The same concept extends to the props, which must also fit into the film's theme. Barry announces that he is suing the humans with an appearance on the hive's highest-rated TV show, *Bee Larry King*. When Cooper worked on the program's set, for example, he recalls, "for Bee Larry King's style, we wanted to start from reality and then figure out where to push it. We took the shape of Larry King's desk, and we took the desk props that he has in the show, but every one of them has been tweaked to be the bee version of it: His mug has a slightly different shape. His microphone is the bee version of his microphone, and his desk is made of wax. The language that establishes his television show is interpreted into the bee world."

From Central Park to a parade in Pasadena at the end of the film, from the interior of a hive to the cockpit of an airplane, *Bee Movie* has created a convincing world shared by humans and bees. Hundreds of props, including the clever signage (such as the Vanessa's Flowers logo and the Pollen-Jock insignia) created by Kevin Conran, serve to enhance the fantasy. For Cooper, it feels like a job well done. "I think we've really been successful in synthesizing a fantasy world that works under its own rules, and you can believe it, but it's not our world," he says. "It takes you to a different place. It's sort of a new perspective on our world."

Graphics | Kevin Conran | digital

Pollen-Jock chevrons | Kevin Conran | Photoshop Illustrator

"What's different about a visual-effects supervisor in the live-action world versus in computer animation is that, in animation, everything we do is a visual effect."
—Doug Cooper, visual-effects supervisor

The Finale

The final scenes of the film, in which the fate of all flowers on Earth—not to mention Barry and Vanessa's survival—are at stake, called for a visual-effects extravaganza. To begin with, there was the creation of the Flower Parade and its many colorful and intricate floats. After commandeering a float, Barry and Vanessa must steer it aboard an aircraft, which then flies into a terrible storm. The pace is exceptionally fast, and Doug Cooper's team had countless details to attend to in order to bring the film to its exciting climax.

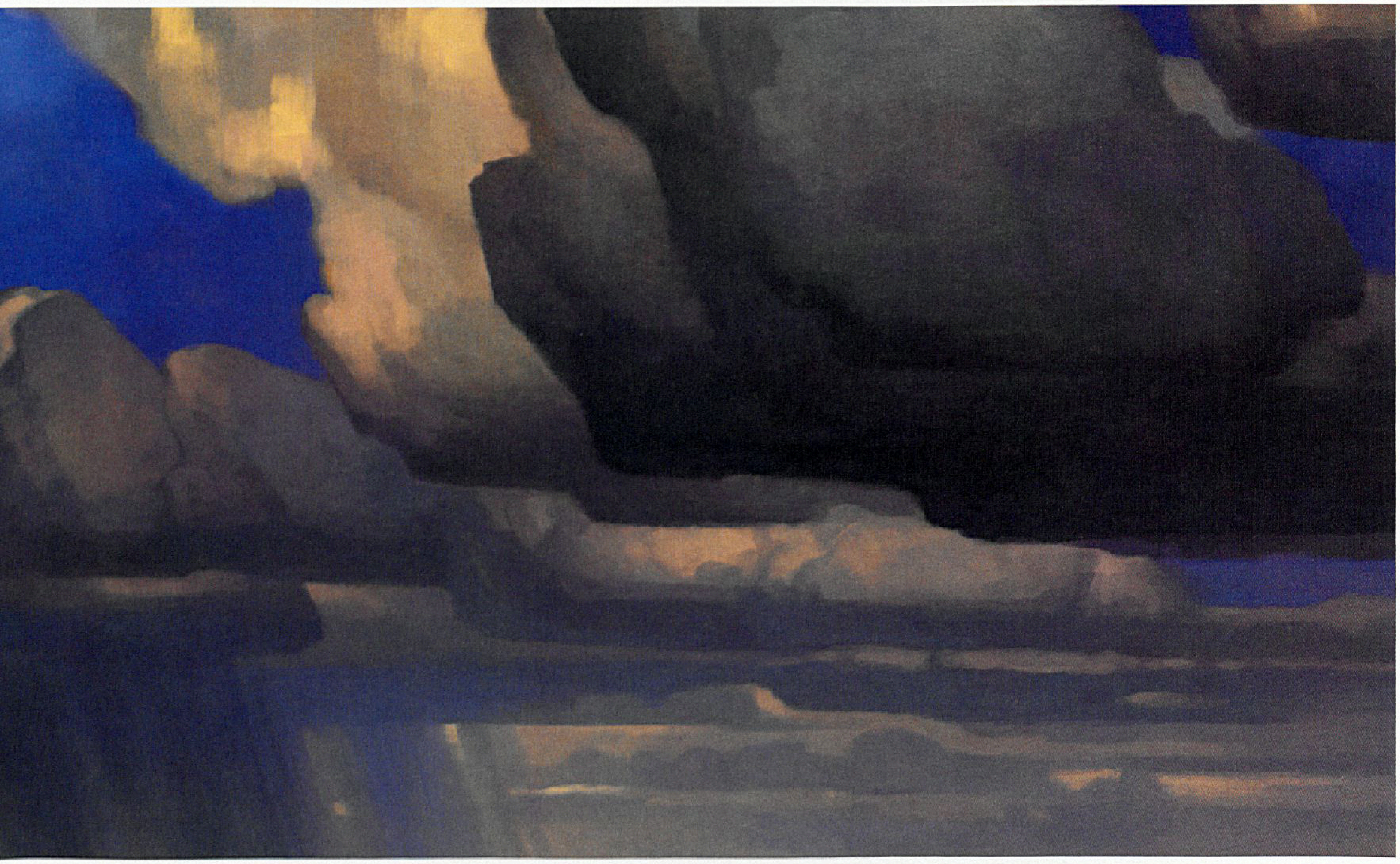
Their expertise and artistry are evident in one of the final scenes in the plane's cockpit. Barry and Vanessa are left helpless after the crew has incapacitated themselves attempting to swat an insistent bee. Barry sends a plea for help to New York's bees, which brings about one of the most breathtaking effects in the film: A massive swarm of Pollen Jocks guide the plane to the runway, where a swarm of bees—in the shape of a flower—cushion the landing. None of this was simple to put on-screen. However, the superb visual-effects team made sure that both the plane and the film came in for a smooth landing.

(Above and Opposite) **Airplane concept** | Ruben Hickman | digital

Lightning concept | Ruben Hickman | digital

"One of the unique challenges of this movie is that we've never done rain at this scale—rain when you're a bee, half an inch long, flying through a rainstorm. Instead of being human-size and watching rain fall, we're actually dodging through giant raindrops. They are suspended in the air, wobbling and shaking at that scale and speed as he is whizzing his way through them, trying to survive and keep from getting hit by the drops."
—Doug Cooper, visual-effects supervisor

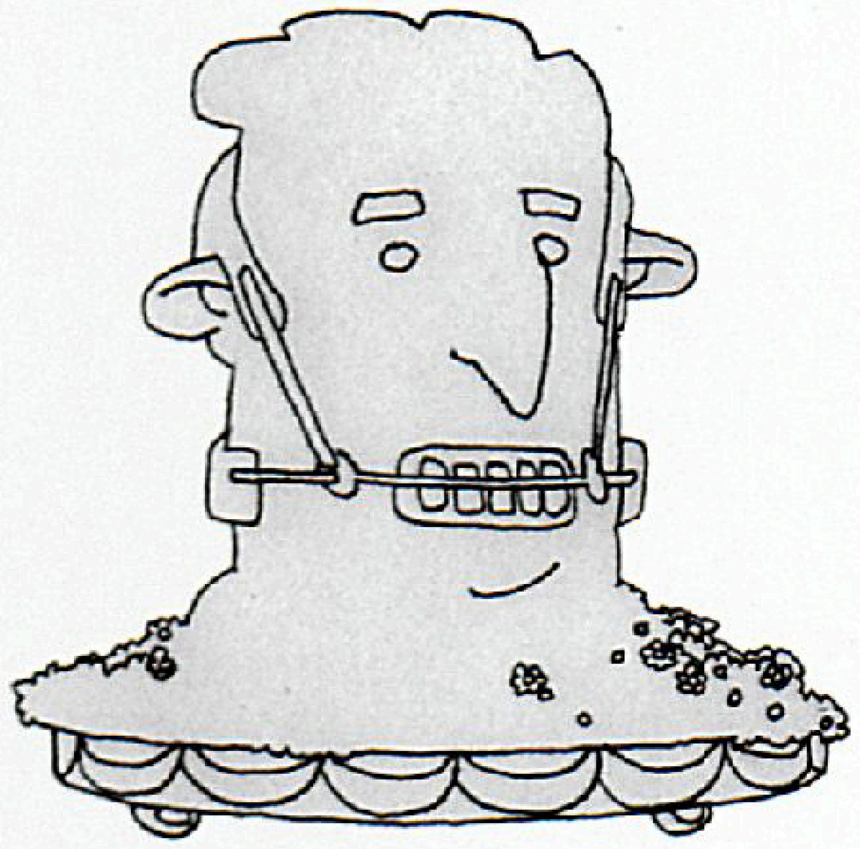
Cloud development | Zhaoping Wei | digital

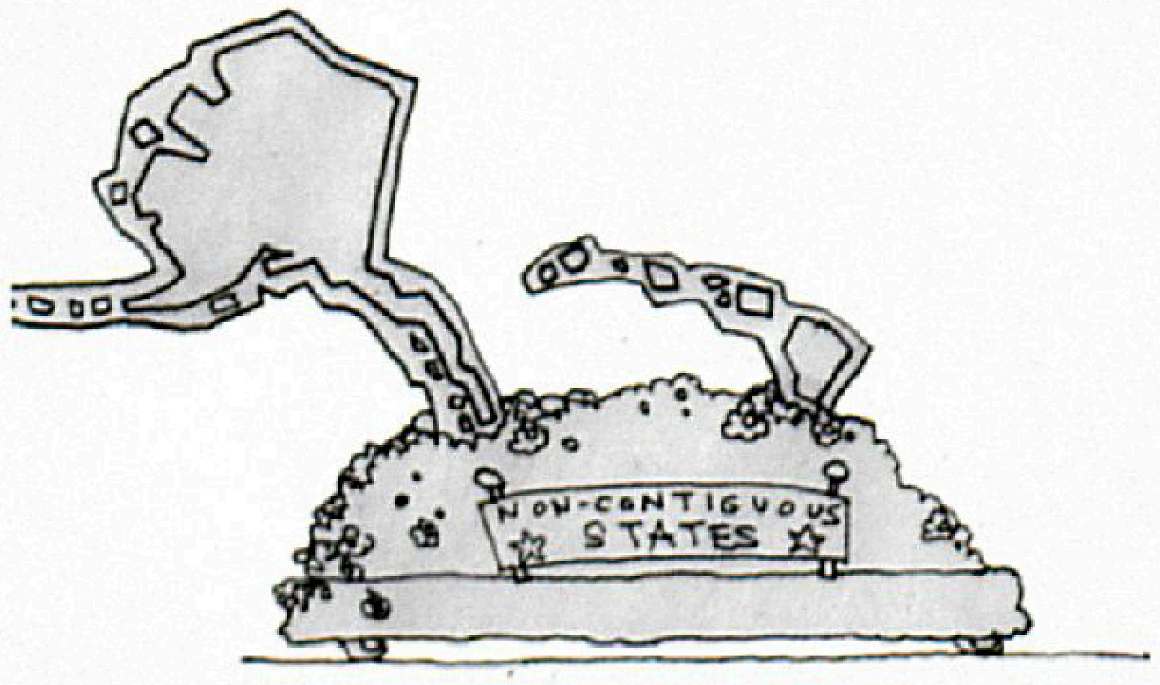


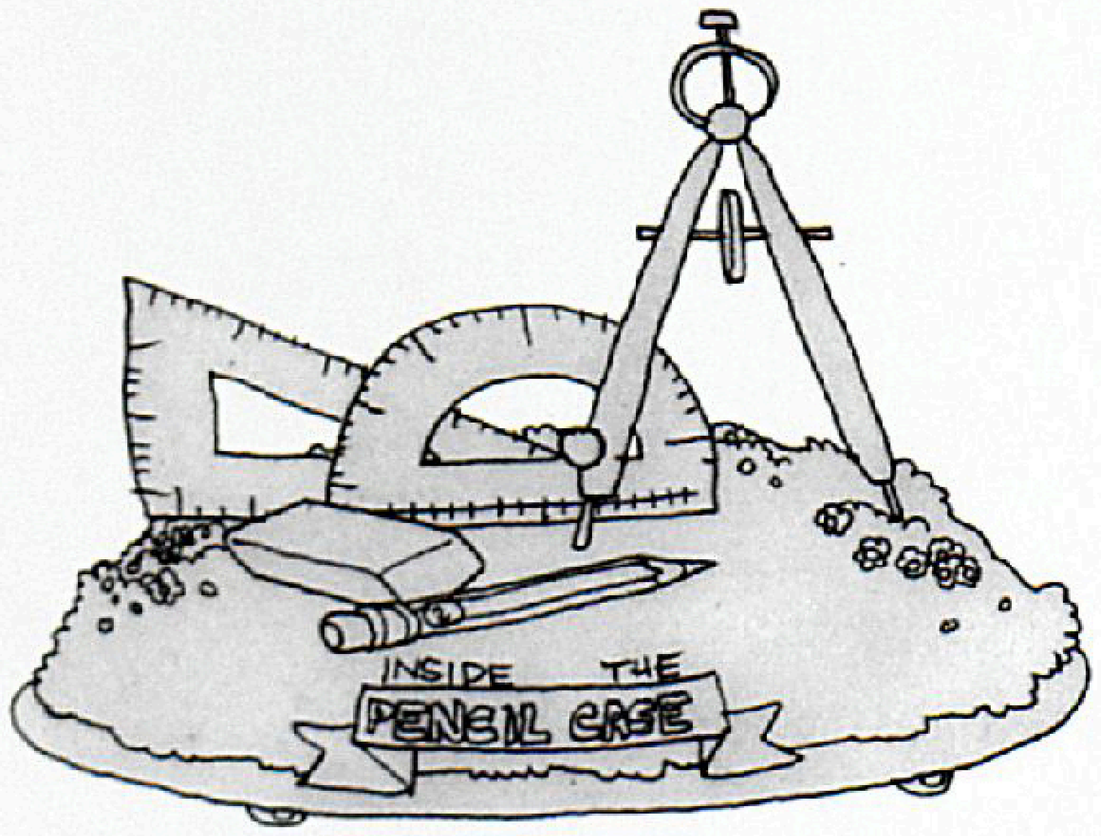
Manhattan rainstorm | Paul Duncan | digital

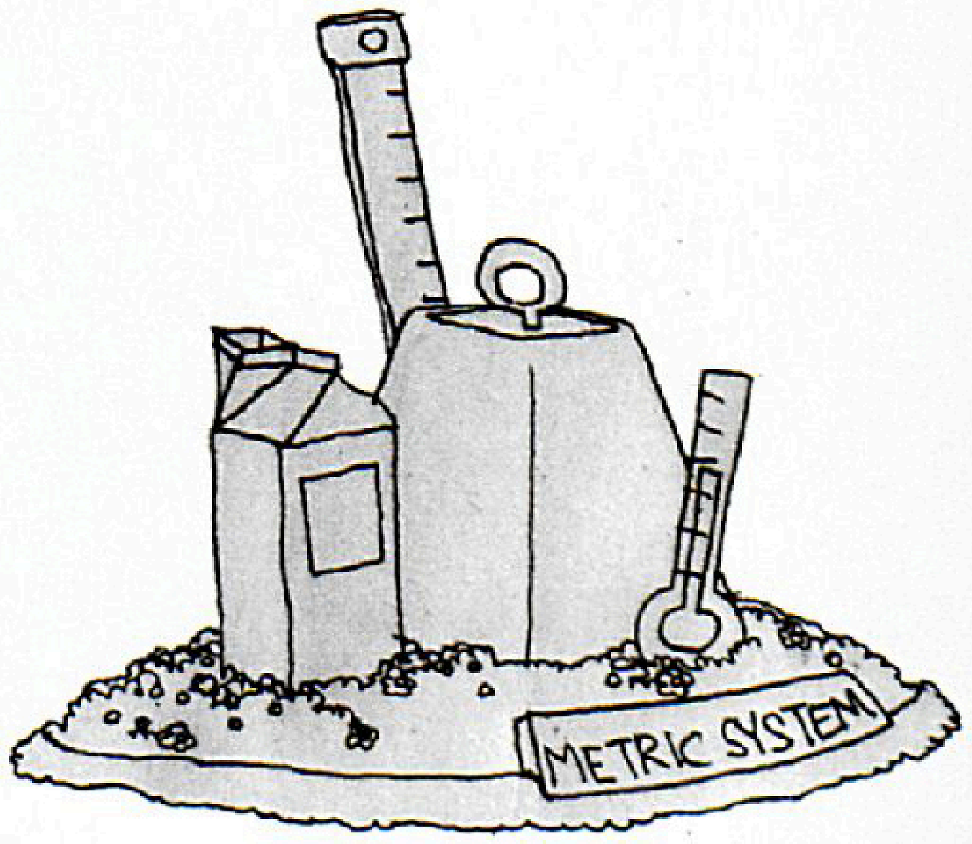
Manhattan rainstorm | Paul Duncan | digital

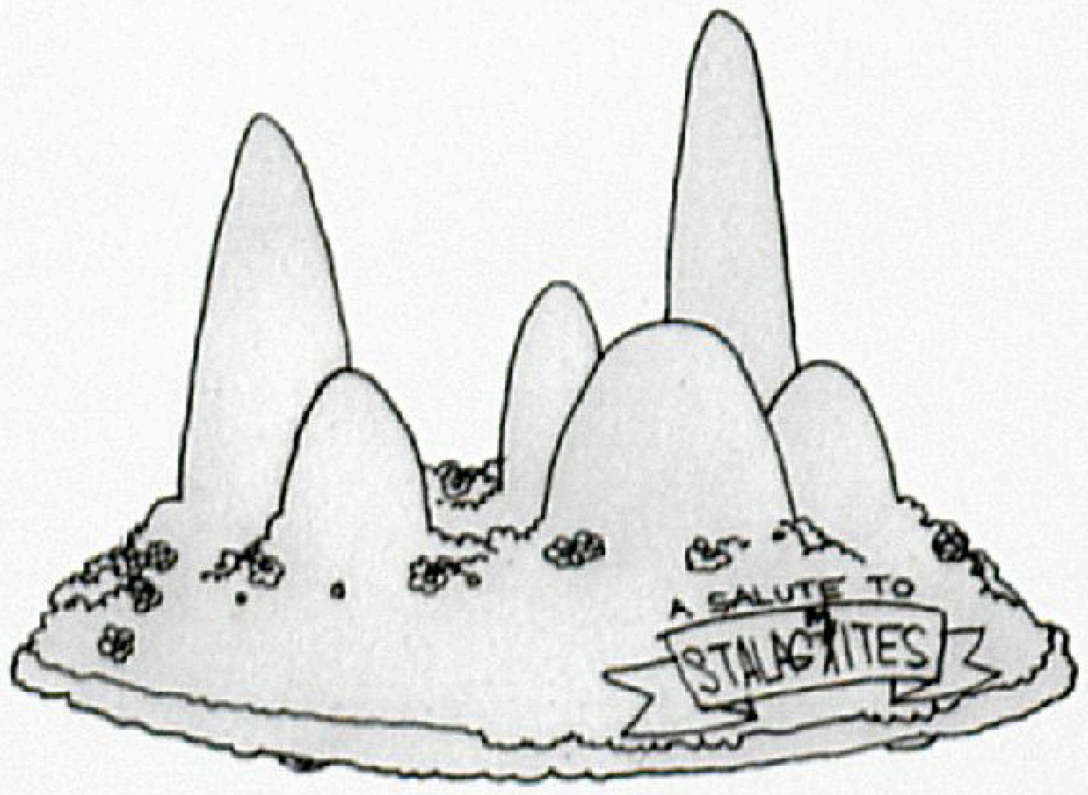
Parade Development Art

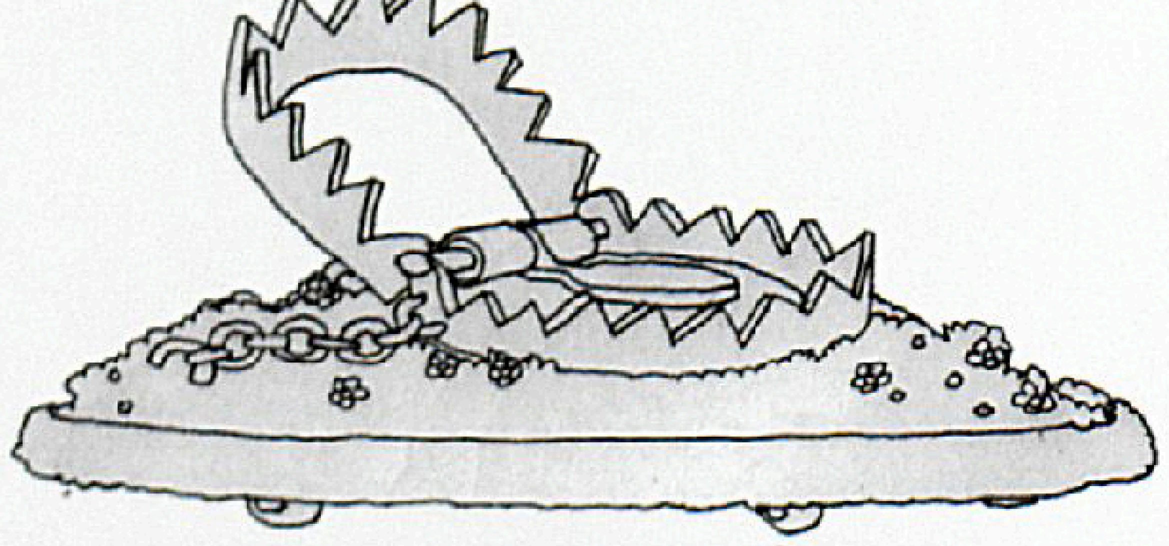


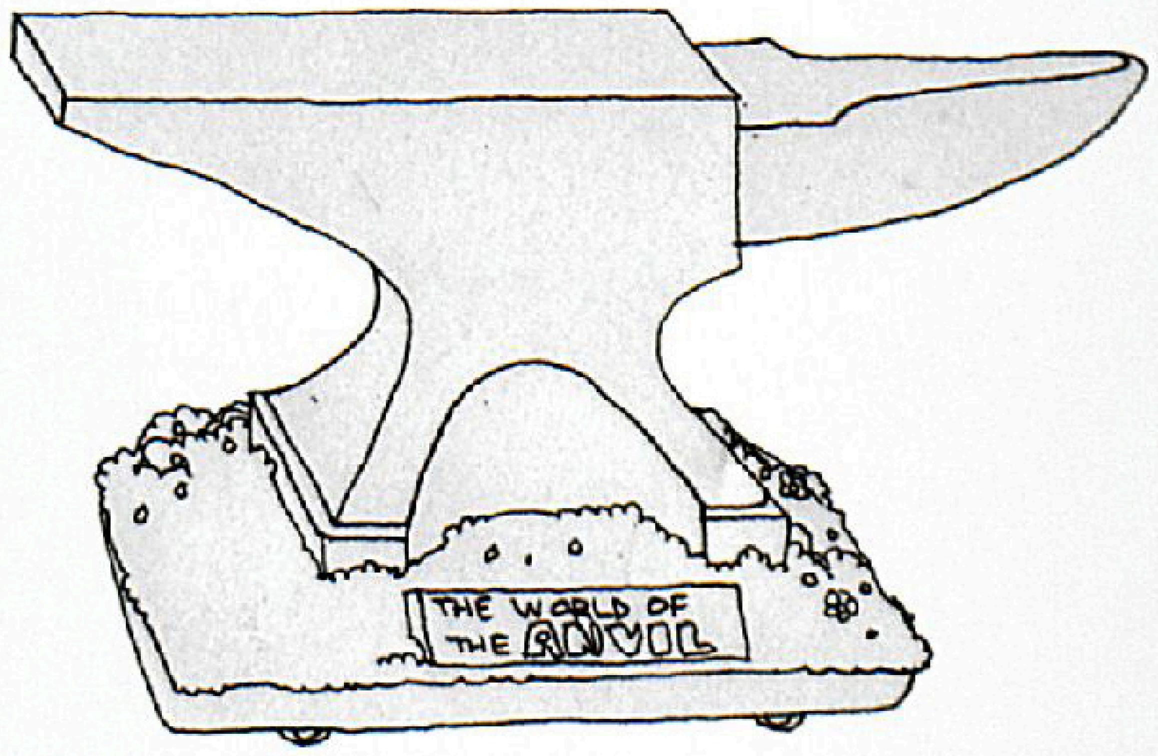


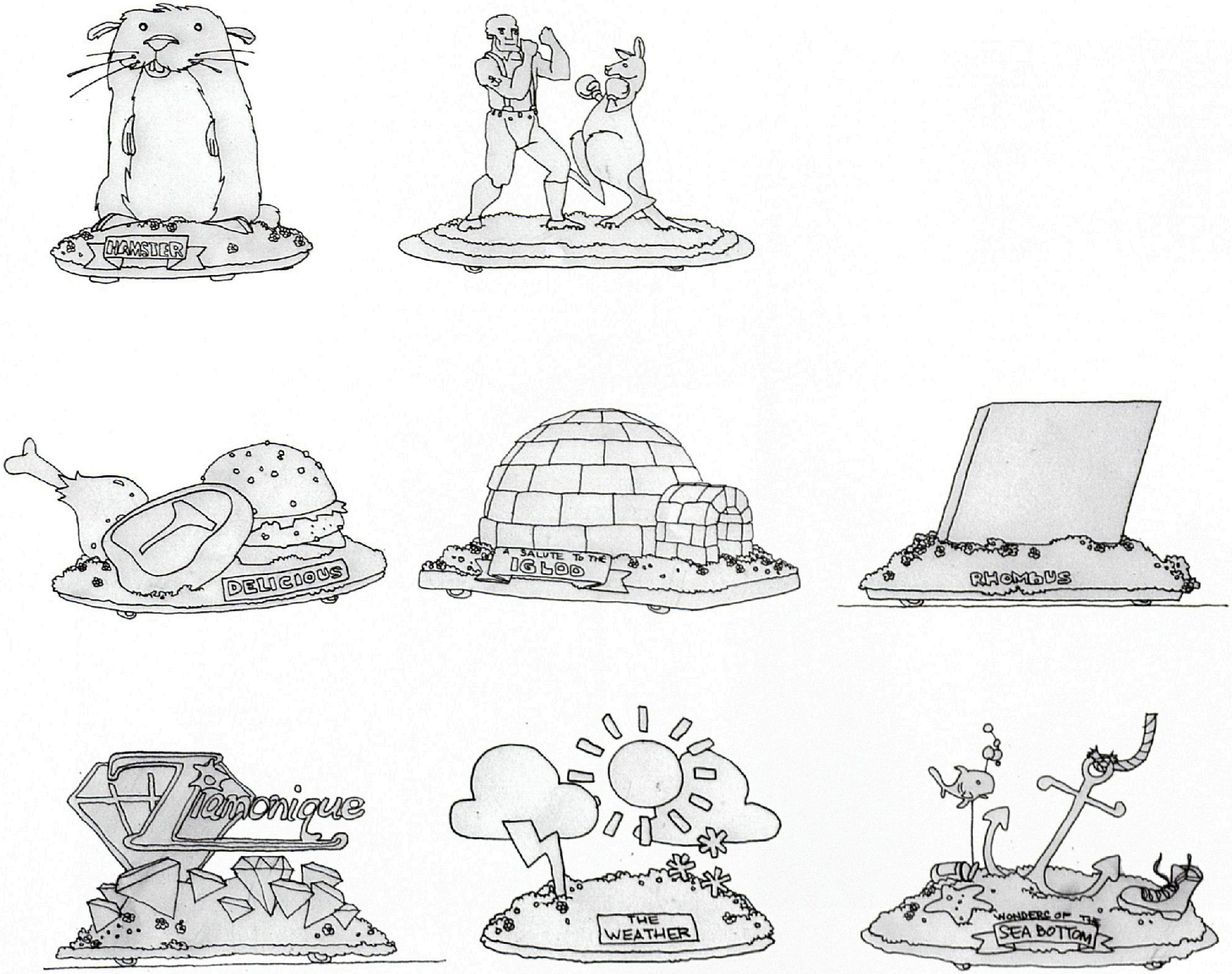






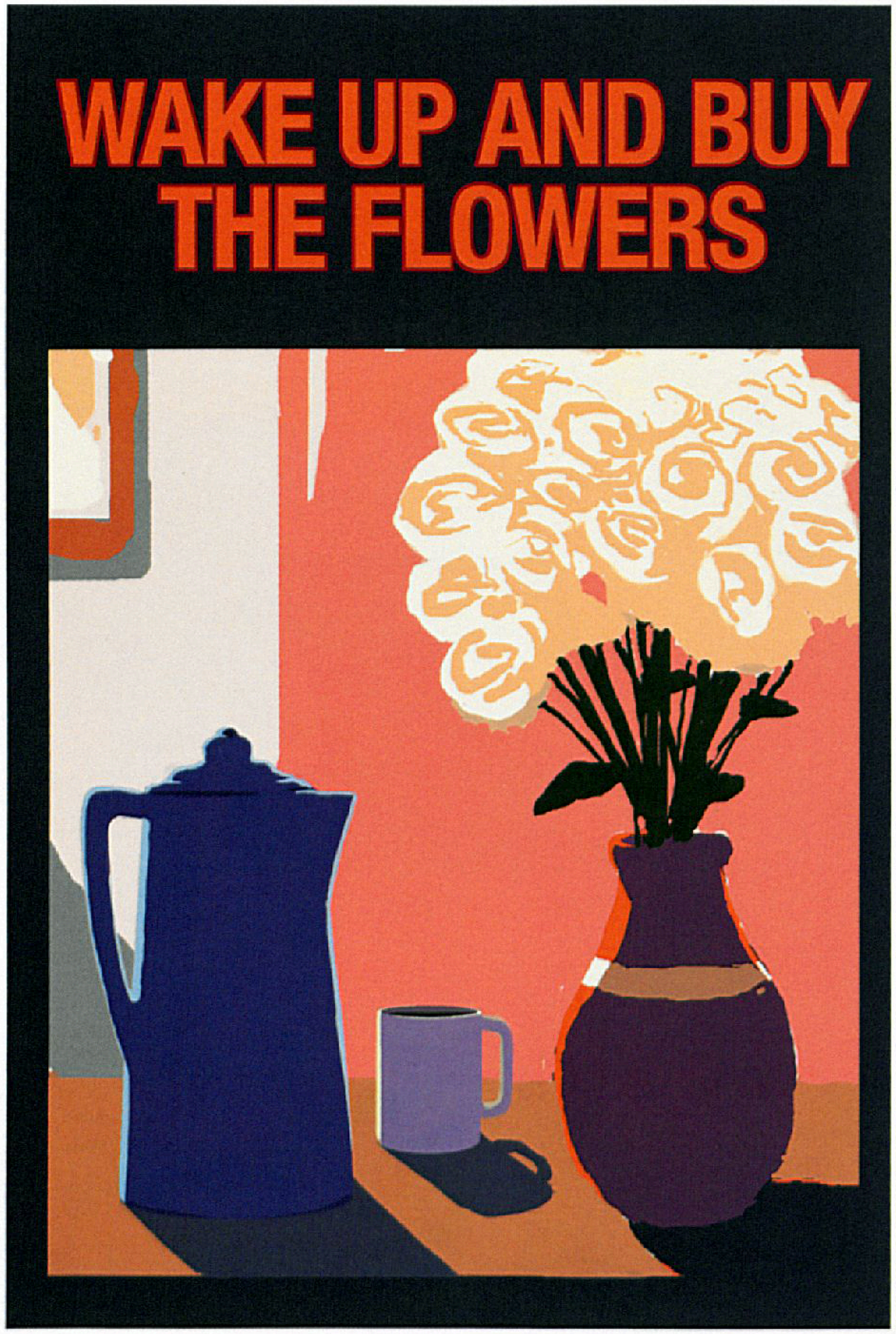






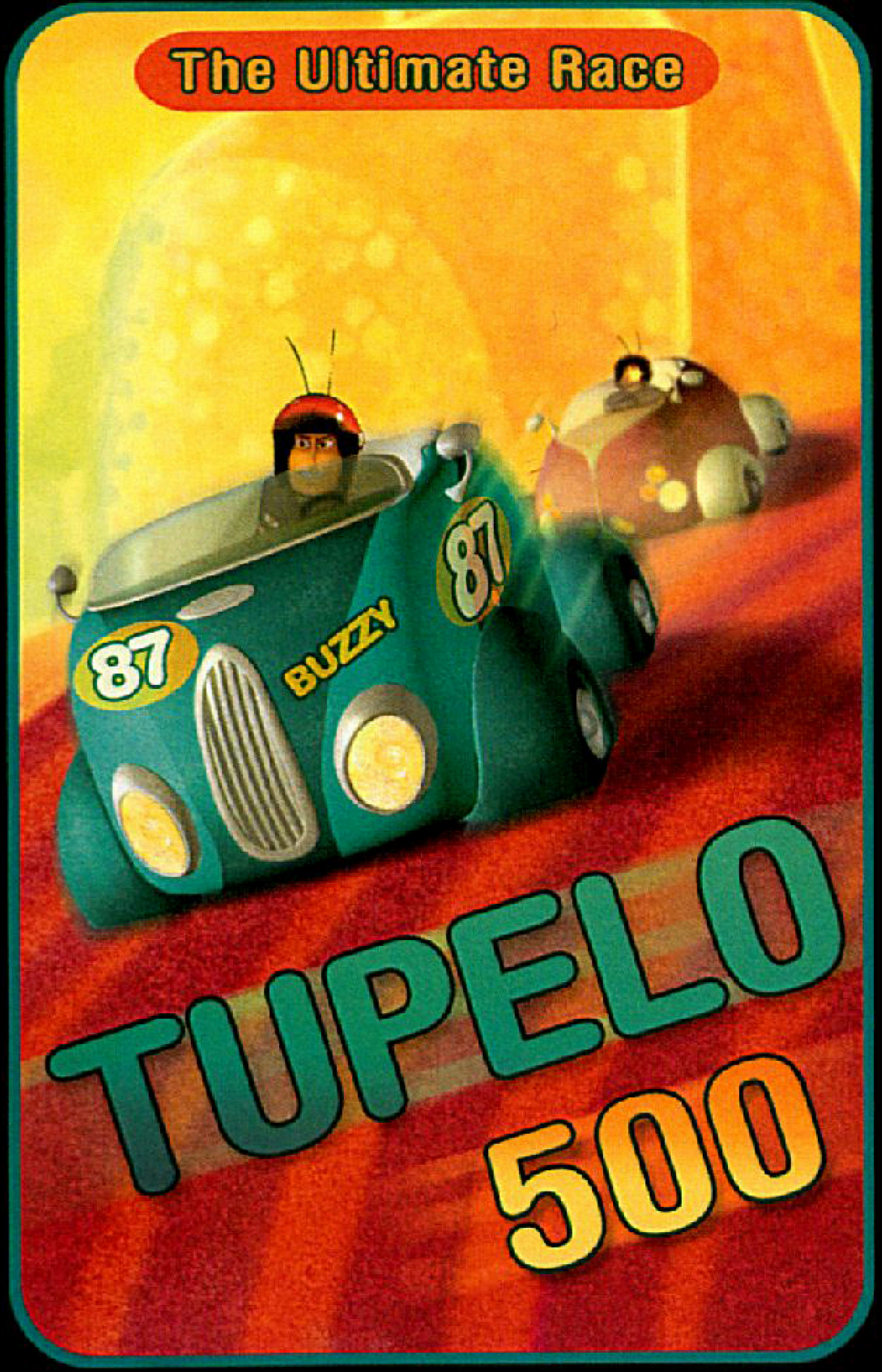
Flower Parade floats | Michael Isaak | pencil

"We push the colors. You can see there is saturation in the color. We don't have black in the shadow—we try to avoid that. Instead, we have a lot of blue in the shadow in order to lift up the color. The movie is really a comedy, and we have to make a point of it. So every time we have darkness—even in the image where the park is supposed to be dead . . . on the emotional scale this is the low point in the movie, where everything is dying . . . there's not a lot of black. We have a lot of pastel colors, we have a lot of blue and gray, a lot of cool colors."
—Christophe Lautrette, art director



Flower shop poster | Mike Yamada | digital

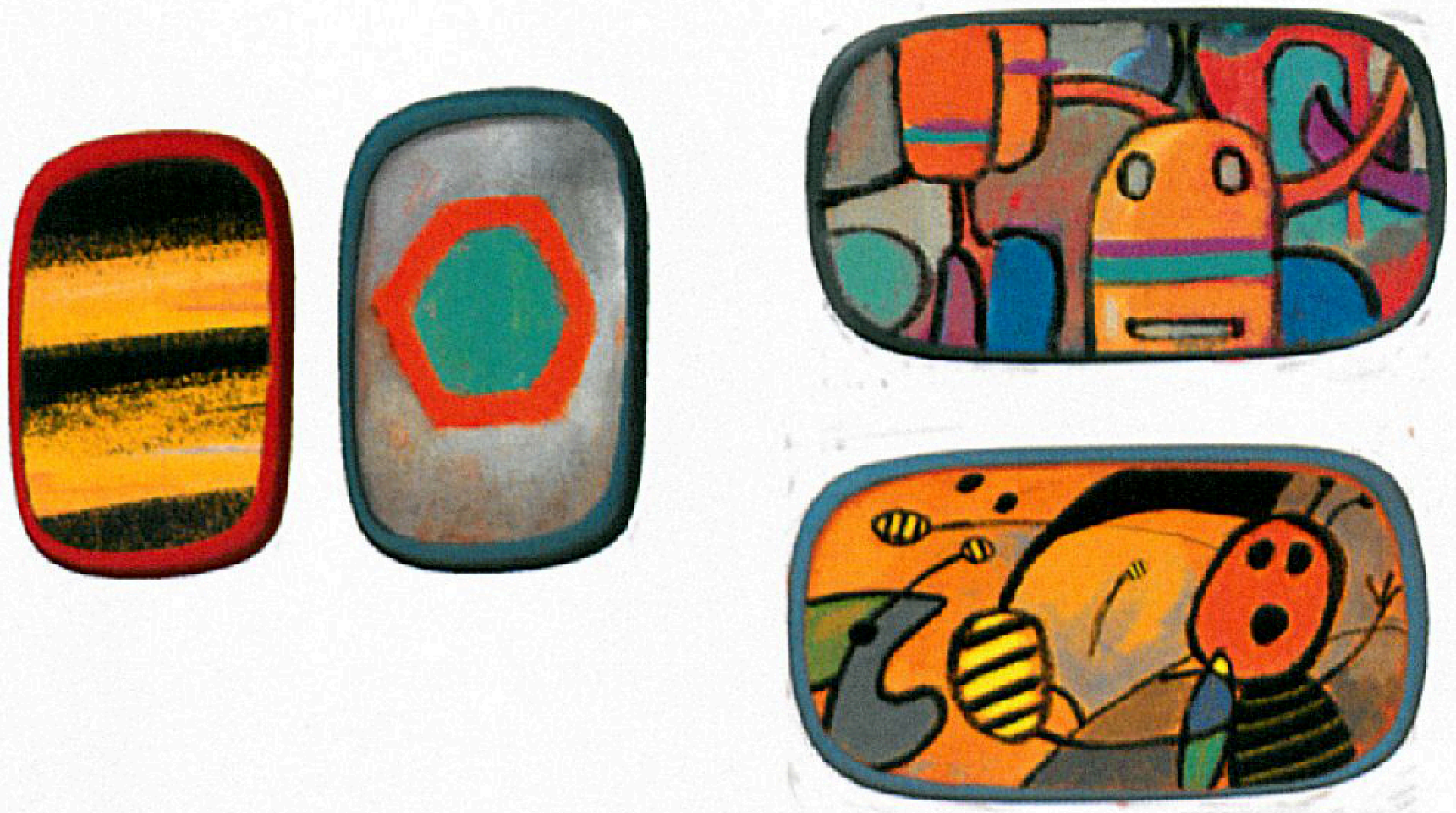
Flower shop poster | Mike Yamada | digital



Race poster | Kirsten Kawamura | digital

Promotional poster | Kirsten Kawamura | digital

Apiary "Man-Queen" painting | Kirsten Kawamura and Tianyi Han | digital



Bee art | Kirsten Kawamura | digital

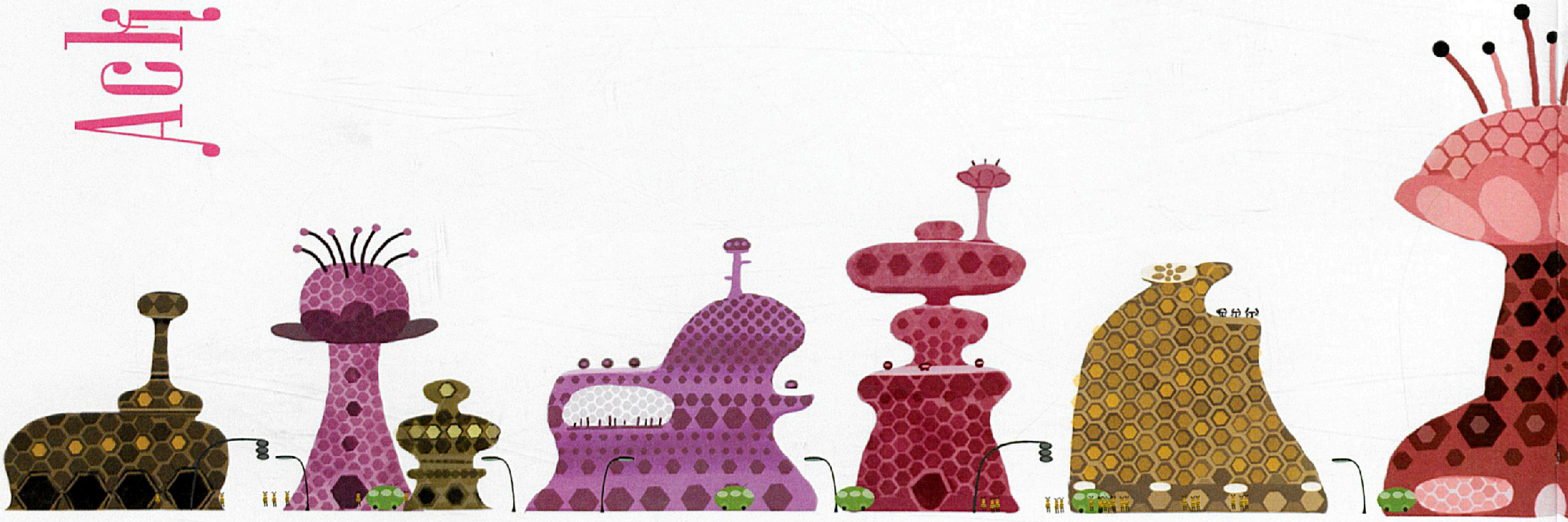
Vanessa touch-up | Davy Cooper, digital; background, Zhaoping Wei | pencil and Photoshop

"We are trying to find this balance where you have these kisses of realism—the freckles and this believable texture of the skin. But the textures themselves are not based on photographs at all. In fact, the grain that makes up the overall pattern of the skin comes from an electronic microscope scan of a piece of aluminum. The idea is to find interesting organic patterns and use them in the right ways. Obviously, your skin doesn't look anything like metal, but when you get to that microscopic level, the grains, the way they form makes a very interesting texture."
—Doug Cooper, visual-effects supervisor

"We had to find the right language for the texture of the skin. We couldn't just take photographs of human skin and put it on there; it doesn't work at all. So I'm really proud of where we've ended up with Vanessa, and I think we found a balance. The textures aren't real—they're stylized—but they have a realistic level of details, and so they're believable, tangible, and they all fit together in this world."
—Doug Cooper, visual-effects supervisor

Vanessa | final movie frame

Acknowledgments



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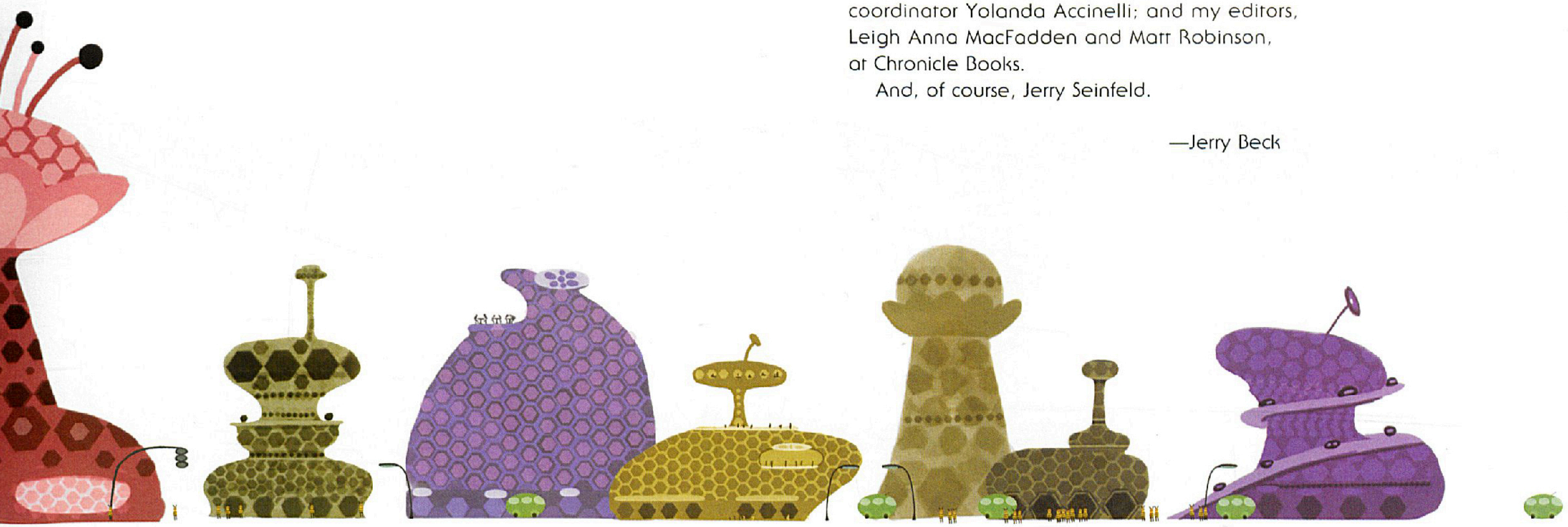
And, of course, Jerry Seinfeld.

—Jerry Beck



House shapes | Kirsten Kawamura | digital

The Artists

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Visual Development Artist
Tony Siruno
Character Designer
Brett Nystul
Visual Development Artist
Olivia Mole
Visual Development Artist
Jon Schmidt
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Emil Mitev
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Devin Crane
Character Designer
Michael Yamada
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Nathan Warner
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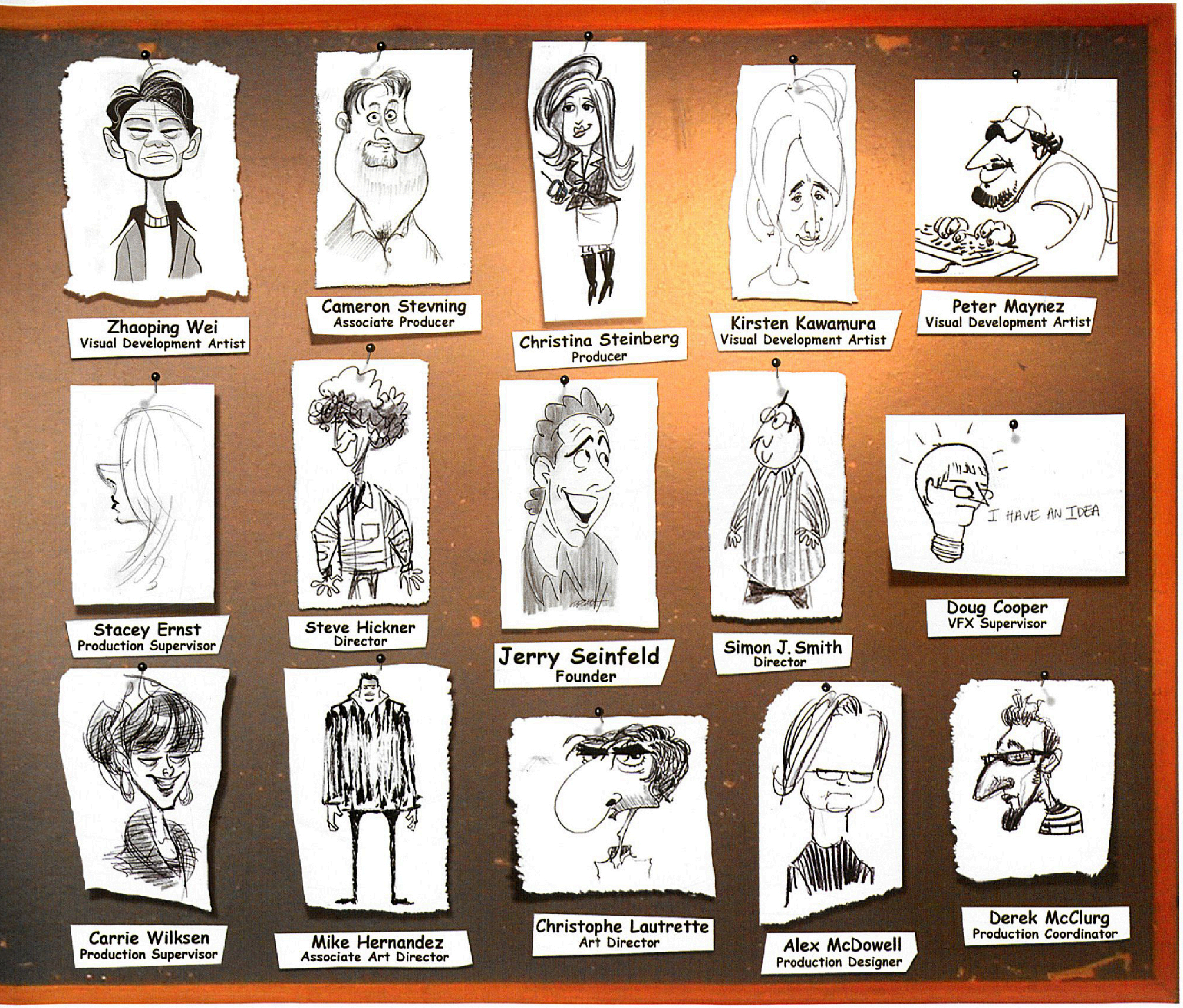
Visual Development Artist
Richard Daskas
Visual Development Artist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Production Coordinator

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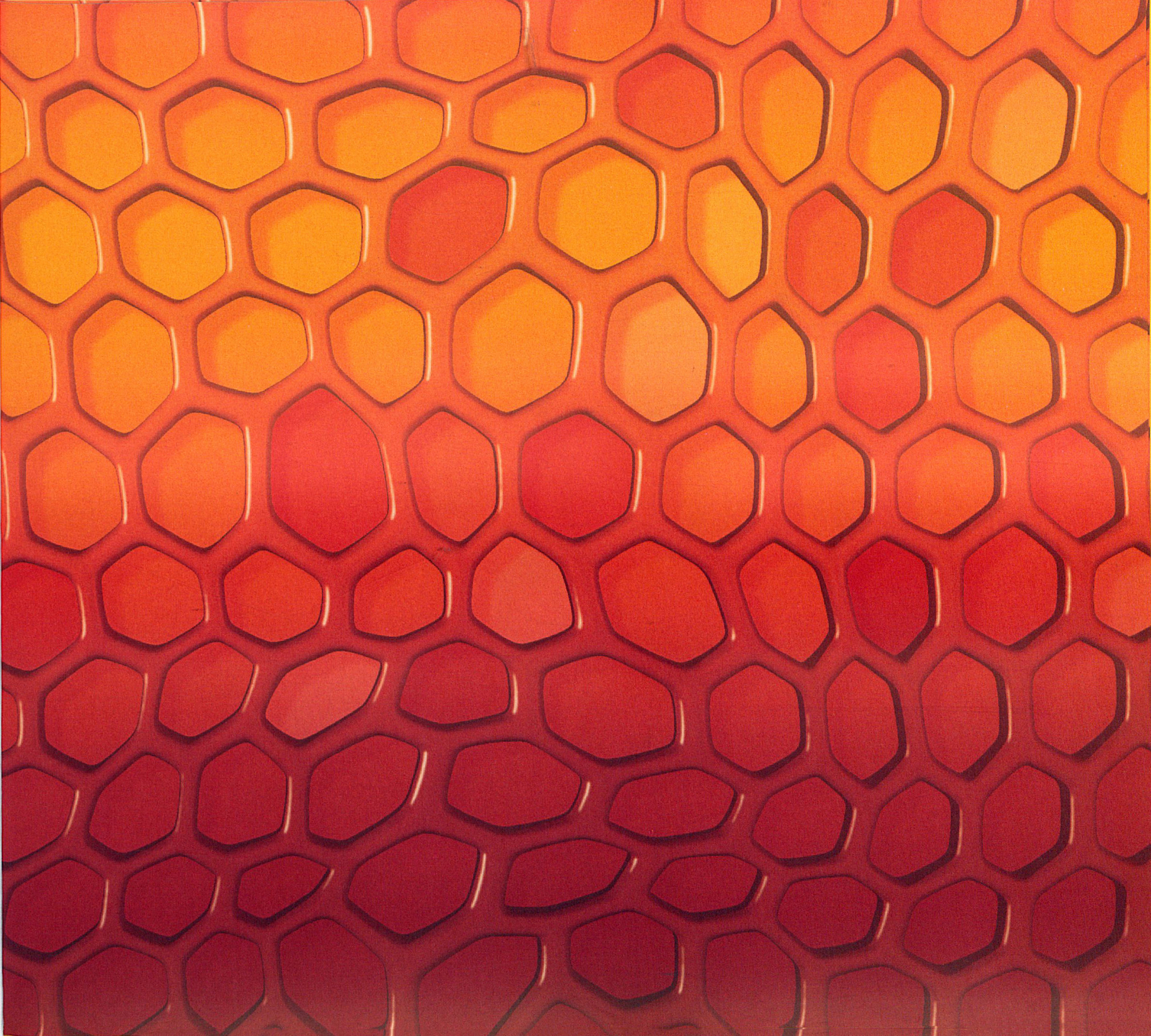
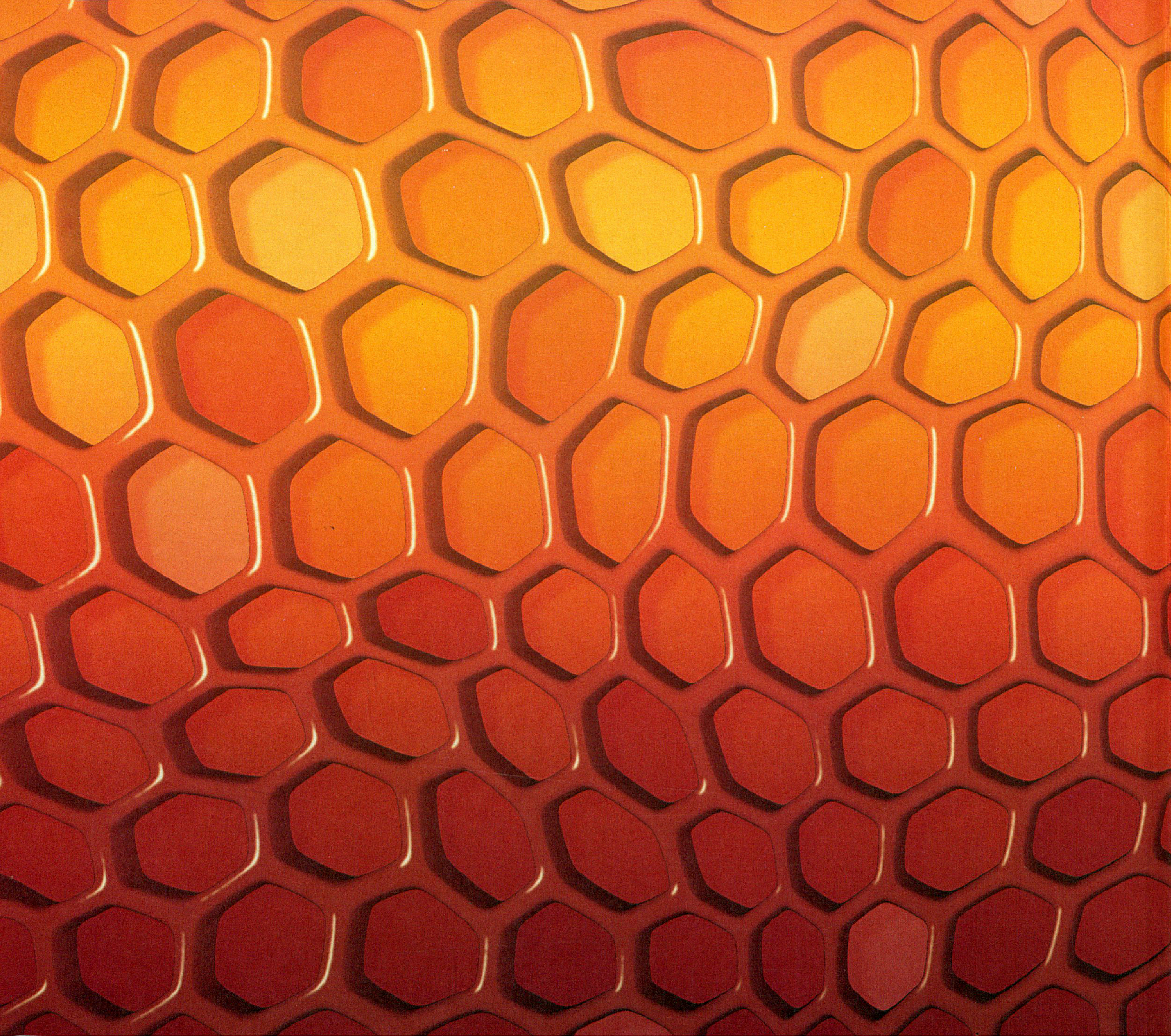
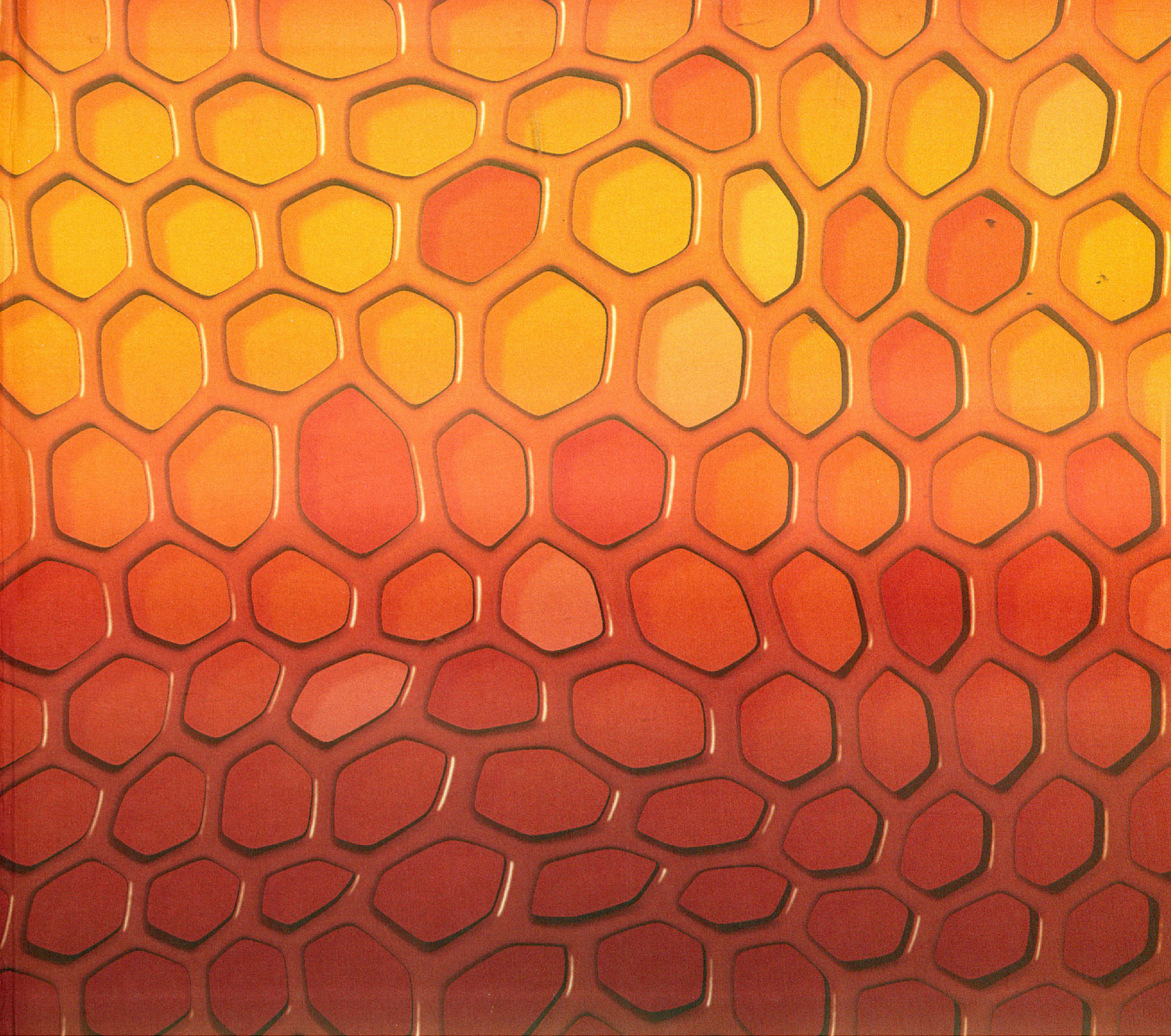
DreamWorks Animation Campus, Glendale, CA







Jerry Seinfeld and DreamWorks Animation SKG bring us *Bee Movie*—a film about what happens when one little bee ventures into the **big city** and discovers that humans have been **stealing honey.** *The Art of Bee Movie* dips into the artistic pot of this **imaginative film** with more than **200 bee-autiful** pieces of **concept art,** including **sketches, digital paintings,** and **clay models.** The artists, production designers, producers, and Jerry Seinfeld himself discuss the evolution of the film in quotes that will **tickle your funny bone** and your imagination.

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